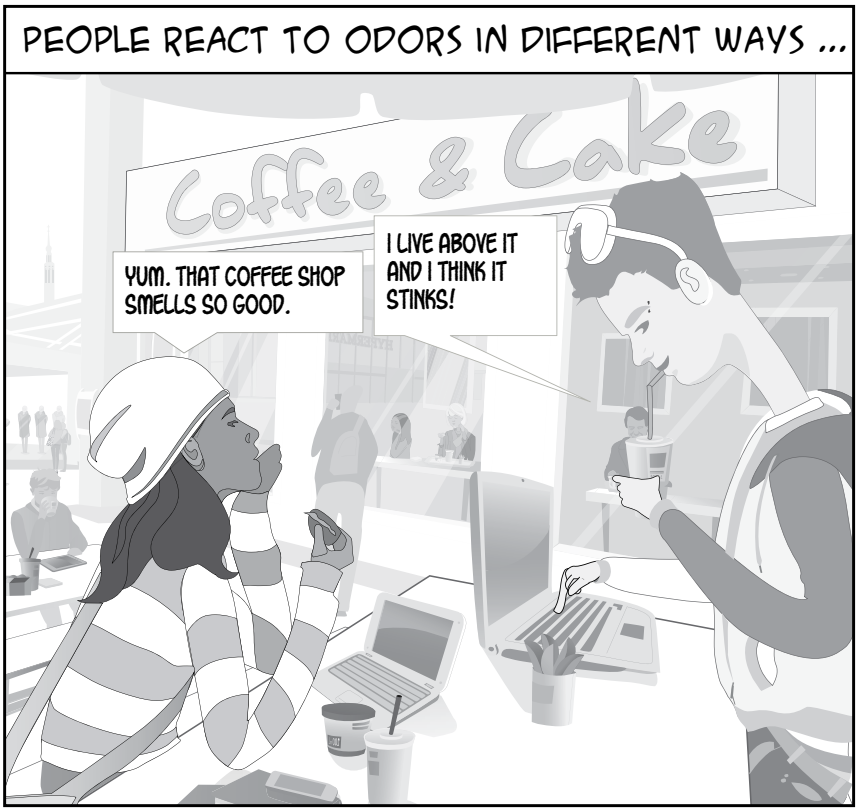
ODORS AND HEALTH

WHAT ARE ODORS?

An odor is another word for a smell. When you notice an odor, that tells you that you are exposed to something in the air that triggered your sense of smell. An odor might be due to a single chemical or mixture of chemicals. Chemicals vary in their ability to produce odors and people vary in their ability to smell odors. Smelling an odor doesn't tell how much exposure you have. It also doesn't tell you whether or not what you are smelling will cause health effects.



DO PEOPLE DIFFER IN HOW THEY NOTICE ODORS?

Yes. People's ability to smell a particular odor will vary. At low levels, some people will notice the odor while others won't notice any. At higher levels, most people will notice the odor. Examples of factors that can affect a person's sense of smell include age, sex and whether or not they smoke.

People also may react to odors in different ways. An odor that one person thinks is pleasant may be unpleasant to someone else. For example, many people would walk into a bakery and enjoy the smell of fresh baked breads and pastries. However, people living near the bakery might not enjoy those strong smells every day. Also, people exposed to the same odor for a long time may no longer notice the odor, even if it is unpleasant. For example, people who work with compost or garbage may not notice the smell after a while.

CAN ODORS CAUSE HEALTH EFFECTS?

Chemicals that trigger odors may cause health effects. In most cases, people will notice an odor well below the level in air that would cause health effects. Also, people are not equally sensitive to chemicals and may not be affected by them in the same way. Whether or not someone experiences health effects depends upon several factors, including the type of chemical, how concentrated the chemical is in the air, how long the exposure continues, and whether or not the person smelling the chemical has any particular sensitivities. Health symptoms from odor exposures usually go away quickly when the odors stop.

Odor is not a reliable way to determine the risk of health effects. For some chemicals, odors will be noticeable at low concentrations where the risk for health effects is also very low. For others, such as carbon monoxide, there is no odor at any concentration and no warning when people are exposed to dangerous levels.

In some cases, odors can be used to tell whether there is a problem that needs to be fixed. For instance, mold problems, sewage backups and gas leaks in the home can all be detected by their odor, even if they can't be seen.

WHAT HEALTH EFFECTS CAN OCCUR?

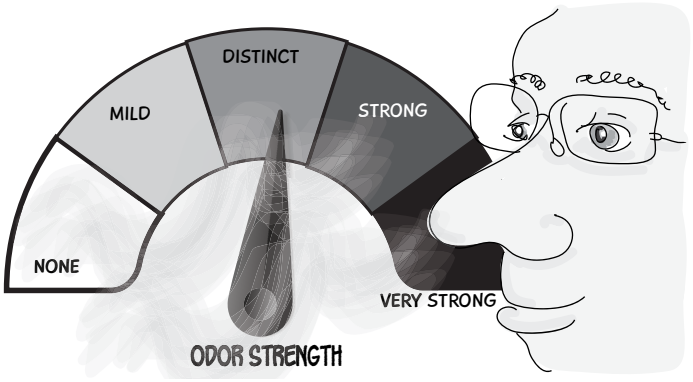
Exposure to odors could result in health effects ranging from none, to mild discomfort, to more serious symptoms. Some chemicals with strong odors may cause eye, nose, throat or lung irritation. Strong odors may cause some people to feel a burning sensation that leads to coughing, wheezing or other breathing problems. People who smell strong odors may get headaches or feel dizzy or nauseous. If an odor lasts a long time or keeps occurring, it also could affect mood, anxiety and stress level.

WHERE DO ODORS COME FROM?

Odor-producing products and activities are a common part of our daily lives and affect both outdoor and indoor air quality. For example, outdoor odors may be produced by chemical, sewage treatment or food processing plants. Paper mills, landfills, dredge spoils or transportation facilities also emit odors. In agricultural communities, you may smell composting, feed lots or manure and sludge spreading. Indoors, everyday activities such as cooking or cleaning could produce odors. Many personal care products are scented, such as candles and air fresheners. Spilled heating oil or stored petroleum products will also produce odors and may affect indoor air.

CAN ODORS BE MEASURED OR SAMPLED?

Standard air sampling methods are not designed to measure the wide variety of chemicals that cause odors from most sources. Even when chemicals that cause odors can be measured, we often can smell them at much lower levels than can be reliably measured. Methods also exist for measuring odors directly using people who are trained as expert odor "sniffers." However, understanding what the measurements mean for people exposed to odors can be difficult because people respond so differently to odors.



WHAT CAN I DO IF I HAVE A PROBLEM WITH OUTDOOR ODORS?

Try to keep outdoor odors from entering your home. When outdoor odors are noticeable, close your windows. Set your heating, air conditioning and ventilation system so that it recirculates the indoor air and does not draw in outdoor air. Of course, if the smell outside is bad and frequent enough to force you indoors, that probably means better controls are needed at the source.

If you are having a problem with a persistent outdoor odor, check with your local health department www.health.ny.gov/environmental/water/drinking/doh_pub_contacts_map.htm or your regional office of the Department of Environmental Conservation www.dec.ny.gov/about/558.html for advice.

WHAT CAN I DO IF I HAVE A PROBLEM WITH INDOOR ODORS?

Try to find the source if you have unpleasant indoor odors. These odors might be caused by cleaning products, paints, or solvents that should be stored outside, in a closed cabinet or discarded. Check for problems with garbage storage or pest infestations. If you have a musty smell, check for moisture problems that could lead to mold growth. The way to control indoor odors is to find the source and remove it, or contain it in some way so that it doesn't release odors. Until the source is removed, opening windows and using fans will increase fresh air ventilation in the home, which will help reduce odors.

Some people choose to add odors to their indoor space, such as air fresheners or scented candles. These scented products only mask or cover up other odors by adding more chemicals into the indoor air. They do not get to the source of the odor problem and could be irritating or cause allergic reactions for sensitive people. Ozone generators also are not a good choice to control indoor odors. They produce very high levels of indoor ozone which can be dangerous to breathe.

FOR MORE INFORMATION...

Call NY State Department of Health at 518-402-7800/800-458-1158 or check out these websites:

ABOUT EXPOSURE
www.health.ny.gov/environmental/about/exposure.htm

LANDFILL GAS
www.health.ny.gov/environmental/outdoors/air/landfill_gas.htm

HYDROGEN SULFIDE
www.health.ny.gov/environmental/chemicals/hydrogen_sulfide/

AVOIDING INDOOR AIR QUALITY PROBLEMS DURING ROOFING
www.health.ny.gov/environmental/indoors/air/docs/roofing.pdf

VOLATILE ORGANIC COMPOUNDS
www.health.ny.gov/environmental/indoors/voc.htm

MOLD
www.health.ny.gov/publications/7287/

PETROLEUM SPILLS AND FLOODING
www.health.ny.gov/publications/2752.pdf

ASTHMA TRIGGERS
www.health.ny.gov/publications/4990/

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