



FREQUENTLY ASKED QUESTIONS (FAQs) ABOUT SEWER GAS

What is sewer gas?

Sewer gas is a mixture of toxic and non-toxic gases that may be present at varying concentrations. Gases are formed when household and industrial waste decay. Sewer gases can contain chemicals such as hydrogen sulfide, ammonia, methane, and others.

How might I be exposed to sewer gas?

Exposure to sewer gas primarily occurs through inhalation, but exposure through skin and eye contact is also possible. In the home, faulty plumbing might be the cause of odors. Dry traps in sewer drains, or cracks in the waste line beneath or adjacent to the home might allow sewer gases to enter the home. The gases are usually found in low-lying areas of the home, particularly basements, and can accumulate if there is not sufficient ventilation.

How can sewer gas affect my health?

Sewer gases can produce odors that can be a nuisance at low levels. When sewer gases are present at high levels, it is possible that adverse health effects can result. Symptoms from exposure to sewer gas may include dizziness, nausea, headache, loss of appetite, irritability, and drowsiness. Common chemicals found in sewer gases and possible health effects are listed below:

Asphyxiation

High concentrations of sewer gases in enclosed areas can lead to suffocation since elevated levels of sewer gases will decrease the oxygen concentration in the air. The effects of oxygen deficiency can include headache, nausea, dizziness and unconsciousness. When oxygen concentration is less than 12%, a person can become unconscious.

Hydrogen Sulfide

Hydrogen sulfide is a colorless, flammable, extremely hazardous and irritating gas with a "rotten egg" smell. Hydrogen sulfide can affect the body if it is inhaled or it comes in contact with the eyes, skin, nose or throat. Inhalation of low concentrations may cause a headache, dizziness, eye irritation, cough, and shortness of breath. Asthmatics may also experience breathing difficulties. Inhalation of extremely high concentrations can cause shock, convulsions, inability to breathe, unconsciousness, and coma.

Ammonia

Ammonia is a colorless gas with a sharp, pungent odor. Breathing high concentrations of ammonia can cause fluid in the lungs to build up, and possible lung damage. Exposure to high levels of ammonia can burn the eyes, skin, throat, and lungs. Breathing lower concentrations of ammonia can cause coughing, wheezing, shortness of breath, laryngitis, headaches, fever, nausea, vomiting, pink frothy phlegm, chest pain, asthma, rapid pulse, and increased blood pressure. Eye exposure may cause conjunctivitis, corneal irritation or damage, and temporary or permanent blindness.

Methane

Methane is a colorless and odorless gas. High levels of methane can decrease the amount of oxygen in the air and cause suffocation with symptoms of headache, dizziness, weakness, nausea, vomiting, loss of coordination and judgment, increased breathing rate and loss of consciousness. Methane is considered an asphyxiant at extremely high concentrations and can displace oxygen in the blood.

How can I prevent exposure to sewer gas?

- Add water to floor drains and sink drains, especially those used less often, to prevent the traps in the pipes from drying out.
- Maintain your septic system.
- Call a licensed plumber if you have wet spots in crawlspaces under your home or in your yard that do not go away.

What should I do if I suspect there is a problem?

When an odor is first detected, try to find the source. Flush water through any floor drain to ensure that the trap has water to prevent gases from entering into the home. A “rotten egg” smell can be caused by sewer gas, or a natural gas leak in homes that use gas to heat or cook. If you detect a rotten egg odor in your home you should go outside and call the fire department for assistance. Methane is explosive and hydrogen sulfide is flammable, therefore you should avoid smoking, using electrical appliances, or making a spark when in the presence of sewer gases. If you are feeling ill and detect an odor, seek fresh air, preferably outside the home, and contact your health care provider. Contact a licensed plumber to help identify and fix the sewer gas problem.

Prepared By: Division of Environmental Epidemiology
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