Protecting Your Health from Shale Gas Development (Fracking)

Here are some tips for limiting your exposure to pollution from shale gas development, which may reach you through air and water contamination. If you know that contamination exists, report it to your local municipality, state departments of health or environmental protection, or the U.S. Environmental Protection Agency.

MONITOR CHANGES IN YOUR HEALTH

Research has shown a variety of potential health effects relating to shale gas development:

- Asthma, chest pain, acute or chronic bronchitis, lung cancer
- Headache, fatigue, dizziness, short-term memory impairment
- Skin rashes; eye, nose, or throat irritations
- Stress, anxiety, depression
- Low birth weight (which can lead to intellectual/developmental disabilities), congenital heart defects, neural tube defects
- Heart failure
- Leukemia, aplastic anemia, other cancers

Remember that children, the elderly, or people with chronic health conditions are more sensitive to contamination. Pay special attention to and record changes in their health.

ENVIRONMENTAL CONCERNS

If you have concerns related to shale gas development exposure, you should explore this issue with your health care provider.

Let your health care provider know all of the potential hazards that are near where you live or work or where your children attend school. Example of potential hazards include: well pads, water impoundments, compressor stations, processing plants, excessive diesel truck traffic, and landfills.

Tell your health care provider about the sources of pollution you are concerned about and why you think they are causing your problems.

Make sure your health care provider knows if you have well or city water and if you use bottled water or a water buffalo for drinking, cooking, and bathing.

Know what types of systems you use to heat and cool your home and learn whether you can filter your air through those systems.

Know that it is not always possible to be tested for toxic chemicals. Some chemicals combine with others so they cannot be tested; others last only a very short time in the body, so if tests are not done right away, they could be inaccurate. What your health care provider can do is order routine laboratory tests to see if your body is responding to a chemical exposure.

KEEP A HEALTH DIARY

Write down changes in your health, specifically symptoms mentioned above, that cannot be explained by other conditions.

Also, make sure to note any changes you observe in your water, air, noise levels, light pollution, or general home environment. Then share this information with your health care provider.
If you live in proximity to shale gas development or suspect you are being exposed to shale gas pollution:

**LIMIT CONTAMINATION IN YOUR AIR**

Use a stand-alone air filter in your home to clear particulate matter (PM) from indoor air. Air filters will remove some PM and specific harmful chemicals. EHP recommends the Austin Air HealthMate because of the quality of the product. See the Reducing Outdoor Contaminants in Indoor Spaces (ROCIS) website for a low-cost, DIY alternative: https://rocis.org/072318-how-assemble-fanfilter.

Let fresh air in your home when outdoor air quality is good and keep your windows closed when air quality is bad. Local monitors (see purpleair.com) can help you figure out air quality near you. If there are no monitors near you, AirNow.gov can provide an estimate of your air quality. If the AQI is below 50 and you notice no strange smells, then you should be safe to open your windows.

If you use well or spring water, vent indoor air to help reduce exposures to volatile organic compounds (VOCs) that could be in your water.

- If you have a stove fan that vents outside, always use it while cooking.
- Open windows or run an exhaust fan in the bathroom, kitchen, and laundry room when in use.

Clean your house often, especially areas where your children play.

- Wear gloves and use a damp cloth or use a vacuum that can fit a high-efficiency particulate arrestance (HEPA) filter.
- Do not sweep with a broom because it will stir up contaminants that have landed in your home.
- Take off your shoes and wipe off pets' paws and fur before going inside. This will help to prevent them carrying contamination from outside into your home. Remove contaminated clothing before entering the home to reduce family exposures.

Consider using an air quality monitor that measures PM in your outdoor air. You can buy monitors online at sites such as purpleair.com.

**MONITOR YOUR WATER FOR CONTAMINATION**

Do not rely on one-time water tests to tell you if your water is safe to drink and use.

- One-time water tests conducted by labs can be expensive and will only give you a snapshot of your water quality. Remember that accidents and contamination can happen at any time.
- Consider using a water quality monitor that lets you know when there are changes in your water.

If you think your spring or well water may be contaminated:

- Avoid using it and consider using bottled water for drinking, cooking, and especially making drinks like baby formula.
- Consider using an alternative source of water when showering as VOCs can become airborne when water sprays from a showerhead.
- If you must drink or cook with your spring or well water, leave it uncovered in a pitcher or bottle overnight before using it. By leaving containers uncovered, VOCs will evaporate into the air. If possible, vent the air.
- If you must bathe or shower at home, vent your bathroom to the greatest extent possible.

Stop drinking your water if you or someone in your family has stomach pain or discomfort, muscle pains, or other unusual symptoms.

If your water burns your skin or causes a rash, take showers and baths somewhere else. Go see your health care provider and call your state environmental protection agency.

**OTHER CONCERNS**

Shale gas development waste contains toxics, including radionuclides. Due to exemptions in federal regulations, this waste is not classified as toxic, is not handled as such, can be deposited in municipal landfills, and can be hauled in unmarked trucks.

Report activities that appear to indicate improper disposal, such as dumping or leaking, to your local municipality, to the department of environmental protection in your state, and to the U.S. Environmental Protection Agency.

Be aware that certain household products, like some sidewalk de-icers and pool salts, have been produced using shale gas waste. Certain products have made it to market with elevated levels of radium. Frequent use of these products may increase your risk of exposure.

Test your home and basement periodically for radon gas. Radon is a naturally occurring radioactive gas that can seep into homes and collect in closed spaces like basements. In-home radon levels may change due to shale gas development in the area.

To demand better health protection from shale gas development activities, contact your state department of health and local, state, and federal representatives (https://www.usa.gov/elected-officials).