WHAT IS KNOWN ABOUT THE RELATIONSHIP BETWEEN AIR POLLUTION AND RESPIRATORY INFECTIONS?

EHP reviews the existing literature examining how air pollution impacts immune defenses in the lungs, increases health care utilization for acute respiratory infections, and contributes to chronic conditions that make respiratory infections more severe. We also sort through the limited studies associating air pollution with epidemic pathogens. This review may be helpful for patients interested in understanding what is plausible and what is known regarding the relationship between air pollution and infectious lung diseases, including COVID-19. See *Air Pollution and Respiratory Infections: Reviewing the Science*.

Due to COVID-19, the sign-on period has been extended.

**YOU CAN MAKE A DIFFERENCE IN PUBLIC HEALTH**

As evidenced by research, shale gas development poses serious risks to public health. Add your name to **EHP’S LETTER** to the PA Department of Health (DOH) and Governor Wolf asking that these risks be acknowledged and addressed.

To sign, click **HERE**.

**Featured Research Reviews**

**McKenzie et al. (2017): Childhood cancer incidence**

Lisa McKenzie, a researcher at the University of Colorado, and her team have conducted several important studies on the associations between exposure to shale oil and gas development and health. In this study, she and colleagues look at the two most common forms of childhood cancer – acute lymphocytic leukemia (ALL) and non-Hodgkin lymphoma (NHL) – and their association with exposure to shale well pads.
“A systematic review by Balise and colleagues (2016), which examined 45 original published research articles related to oil and gas extraction activities and human reproductive effects, concluded that there is moderate evidence for an increased risk of preterm birth, miscarriage, birth defects, decreased semen quality, and prostate cancer from occupational or community exposure to oil and gas activities...”


Health Outcomes Associated with Exposure to Shale Gas Development from Peer-Reviewed Epidemiological Literature

EHP compiled the epidemiological studies that found statistically significant associations between exposure to shale gas development and adverse health outcomes in this handout. Many of these studies focus on birth impacts. Other topics of study include hospitalizations, body systems outcomes, cancer, sexually transmitted infections, and motor vehicle accidents.

Health outcomes were confirmed by a medical provider unless otherwise noted. Information was adapted from the two literature reviews reported on in EHP’s January HCP newsletter.

Asthma & Shale Gas Development

Shale gas development causes ambient air pollution and stress, two triggers for asthma patients. Peer reviewed studies suggest that individuals living closer to shale gas development are more likely to experience mild, moderate, and severe asthma exacerbations.

EHP’s Asthma & Shale Gas Development handout is a resource for your patients with asthma living in areas of shale gas development. It outlines the research that has been conducted and helps your patients recognize environmental exposures, and take steps to mitigate them within the home, to better protect lung health.

Why Do Spikes or Peaks in Emissions Matter? March 31, 2020

Do your patients suffer from episodic health issues – nosebleeds, headaches, nausea, or even a more serious complication such as asthma? Ask your patients if they live close to shale gas infrastructure, such as well pads, compressor stations, or gas processing stations. Shale gas infrastructure emissions tend to be episodic and, depending on wind and topography, may cause acute health symptoms for patients who spend time in proximity to shale gas sites.

ENVIRONMENTAL HEALTH MEDICAL TOOLKIT

If you suspect that your patient may be experiencing symptoms related to environmental exposure, you may want to inquire about their source of drinking water, proximity to shale gas development infrastructure, and municipal waste sites.

EHP’s Medical Toolkit contains a Survey for Patients’ Potential Exposure and ATSDR’s Exposure History Form that can assist you in working with these patients.
SHALE GAS and OIL HEALTH REGISTRY

If your patients are living in proximity to shale gas development and are experiencing symptoms that are not easily explained, and perhaps episodic, the cause may be related to environmental exposure to airborne or waterborne shale gas pollution. EHP has resources for your patients to track their symptoms and advice on limiting external environmental exposure within the home.

In addition, if the patient lives within 5 miles of shale gas development, they can take part in EHP’s national Health Registry. EHP has resources available to help people register and can provide your office with Health Registry postcards for your patients.

The Southwest Pennsylvania Environmental Health Project (EHP) is a nonprofit public health organization that assists and supports residents of Southwestern Pennsylvania and beyond who believe their health has been, or could be, impacted by shale gas development (fracking).

Services offered by EHP
- Medical ToolKit – Screening & Assessment Tools – Reference Materials
- CME/CEU Credits
- National Shale Gas & Oil Health Registry
- Latest health studies related to shale gas development
- Previous HCP Newsletters

EHP defends public health in the face of oil and gas development.
We provide frontline communities with timely monitoring, interpretation and guidance.
We engage diverse stakeholders: health professionals, researchers, community organizers, public servants, and others.
Because knowledge protects health.

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