

## Why is fracking infrastructure near schools a problem for children's health?

Shale gas operations in the United States have grown exponentially in recent years. Fracking sites, compressor stations, pipelines, metering stations, impoundment pits and dehydrators have exploded across the map. These facilities have tremendous impact on air quality, from their construction to their operation. Building or operating shale infrastructure near schools risks exposing children to pollutants that can cause serious health impacts.

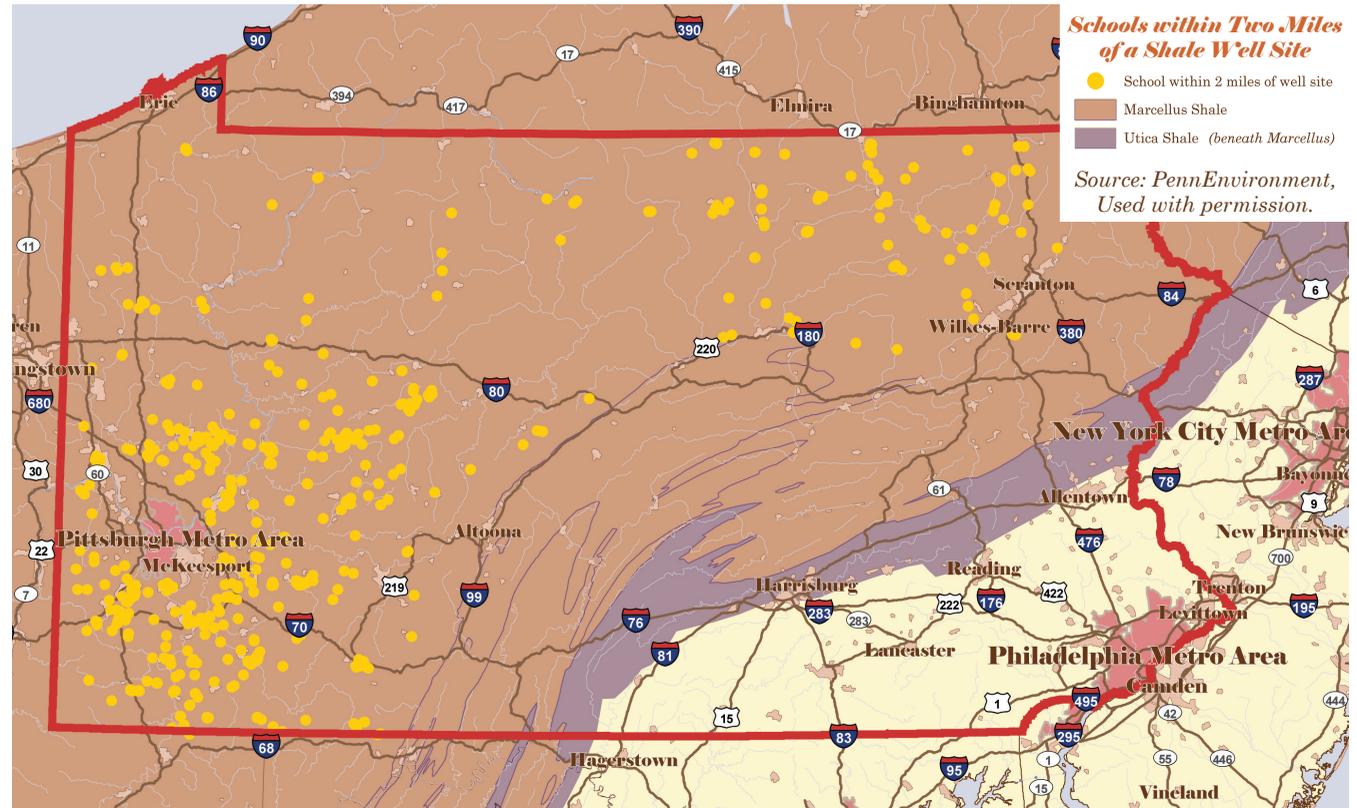
While research demonstrates the increased cancer risks from air pollution at fracking sites, scientists are still researching the cumulative health impacts of many of the different types of chemicals emitted in the drilling process.

Children are more susceptible to damage from toxic chemicals as their bodies and minds are still developing. They have less ability to detoxify dangerous chemicals from their systems than fully grown adults, but are more likely to be exposed to contaminants from air pollution. Hours of outdoor play, essential to childhood development, can expose them to low levels of chemicals over long periods of time if shale infrastructure is in the area.

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### What is Shale?

**Shale** is an underground rock formation containing oil or gas. Shale formations span much of West Virginia, Ohio, Pennsylvania, Maryland, New York, Michigan, North Dakota, and Texas. New methods of drilling have recently enabled companies to extract the gas economically, while causing a host of environmental issues that threaten air and water quality.



**Evidence from** the American Pediatric Association and other organizations points to rising concerns about the health and well-being of children near drilling sites. The truth is that all infrastructure, compressor stations to pipelines, emit harmful air pollutants that can threaten children's health.

**Diesel engines** are used in all stages of gas production, from transportation and construction, to drilling, pumping, and compressing natural gas. These engines continuously emit large amounts of exhaust, containing fine particulate matter and other air-borne toxins.

**Other pollutants released into the air during the extraction, processing, and transport of natural gas that can be harmful to children's health include:**

#### Volatile Organic Compounds (VOCs)

- Irritate the skin/eyes/respiratory system.
- Carcinogenic (increases risk of cancer).

#### Nitrogen Oxides (NOx)

- Irritates the skin/eyes/respiratory system.
- Causes burning, spasms, and inflammation of the lungs.
- Combines with VOCs to form ground-level ozone - the main ingredient of smog.

#### Ground-Level Ozone (smog)

- Causes chest pain, coughing, throat irritation, and congestion.
- Worsens bronchitis, emphysema, and asthma.
- Can permanently burn and scar lung tissue.

#### Silica Dust

- Causes silicosis (a lung disease).
- Exposure has been identified as a health hazard at fracking sites by the National Institute for Occupational Safety and Health.

## What can we do?

**Get involved**, and help us establish a gas infrastructure-free zone one mile around all schools! We encourage concerned parents to take action by figuring out what works best for your community. We want to empower you to:

- **Speak up** against drilling near schools at town meetings.
- **Ask** your elected officials to establish a one-mile setback ordinance.
- **Educate** school officials on the dangers of gas infrastructure.
- **Pressure** gas companies to agree to voluntary setbacks in a community benefits agreement (CBA).

### Join our efforts!

Sign our pledge of support, volunteer to raise awareness about this issue through local events or media work, and advocate locally for setback ordinances for fracking equipment.



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***We aim to mobilize communities to prevent shale gas infrastructure near schools, through connecting local groups to shared resources and information needed to protect our children's health and safety.***

***Our goal is to limit children's exposure to harmful pollutants by keeping shale gas drilling and infrastructure one mile away from schools.***



## What is Hydraulic Fracturing?

Fracking is the process of extracting gas from shale deposits. Companies drill a vertical well down to the shale, and then drill horizontally through the rock formation. A mixture of water, silica sand, and chemicals is forced into the shale to fracture it and release the natural gas.

*Go to our webpage for more information on fracking.*

**Protect Our Children (POC)** is a coalition of parents, concerned citizens, and advocacy organizations, dedicated to protecting school children from the health risks of shale gas drilling and infrastructure.

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*Go to our webpage for sources used for this document.*



*Stop Drilling Near Our Schools*