

# HOW OIL AND GAS OPERATIONS AFFECT THE HEALTH OF SCHOOL AGE CHILDREN

Natural gas is one of the main sources of energy in the US, but it is leaking into our air at every stage of development.

Millions of children are at risk of exposure to pollution.

The recent boom in natural gas production, fueled by fracking, puts thousands of communities in close contact with intensive industrial activity.

Our kids live, learn, and play in those communities with toxic air emissions and significant health risks.



## ASTHMA ATTACKS

Smog from oil and gas pollution will cause more than 750,000 asthma attacks each year in children under the age of 18.

Pollutants released by natural gas operations – including volatile organic compounds (VOCs), nitrogen oxides (NOx), and methane – can travel hundreds of miles on wind currents. The pollution combines with heat and sunlight to form ground level ozone, or smog, a powerful lung irritant. Smog triggers asthma attacks, both near and far from the oil and gas operations that caused the pollution.

Asthma attacks and other respiratory symptoms can cause children to miss school. Children miss 500,000 days of school each year due to smog from oil and gas pollution.



## EXPLOSIONS, FIRES, AND EVACUATION PLANS

Blowouts can propel pipes, mud, cement, fracking fluids, and gases from a wellbore at high pressure, and a spark can set off a gas well explosion during a blowout. In addition, equipment fires on the well pad can release fumes, smoke, and other air toxics.

When there is a blowout or fire, people may need to evacuate the area. School age children may be in harm's way and face possible exposures to high heat, smoke, and air toxics from well pad explosions. When we send our children to school each day, we should be sending them to a safe haven and not a known health and safety risk.



## REPRODUCTIVE HEALTH

Children's reproductive systems are rapidly developing. Living, learning, and playing close to oil and gas operations may interfere with normal reproductive development. Oil and gas operations emit chemicals linked to premature or delayed sexual development. Benzene and toluene, volatile organic compounds (VOCs) emitted by oil and gas operations, have been shown to interfere with the menstrual cycles of workers.

For young parents, other reproductive health hazards may be of even greater concern: Oil and gas pollution has been linked to birth defects, infertility, miscarriage, impaired fetal growth, low birth weight, and preterm birth.



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## CHILDREN ARE TOO CLOSE TO OIL AND GAS OPERATIONS

Natural gas wells, compressor stations, and pipelines are operating too close to our children. Oil and gas infrastructure encroaches on millions of children's homes. The total number of children under 18 living within a half mile of active oil and gas wells, compressors, and processors is 2,279,817.

Oil and gas infrastructure also butts up against thousands of schools. 11,543 schools are located within half a mile of active oil and gas wells. From the front steps of these schools, students can stroll to a well pad, pipeline, or compressor station in 10 minutes or less.

Children's proximity to oil and gas operations means that children are routinely exposed to air pollution from these facilities themselves and the increased truck traffic that typically accompanies them. They are also at risk in the event of a disaster, such as an explosion that may require an evacuation.

Even children living and learning farther than half a mile from an active oil and gas may be at risk of exposure to dangerous air pollution and explosion hazards. Depending on weather conditions, air pollution can travel hundreds of miles.

## HOW CAN I PROTECT MY SCHOOL AGE CHILD?

- Find out if your child's school is located near gas wells at [www.oilandgasthreatmap.com](http://www.oilandgasthreatmap.com). If it is, talk to your school administrators about emergency evacuation planning.
- Because the oil and gas industry does not monitor or disclose air pollution, document your family's health by writing down your observations.
- If you notice health problems, contact your local health department and your state environmental agency.
- Visit your doctor regularly, and discuss these issues with her.
- Join other families in your community to demand protections from pollution.



We need better rules to curb pollution from the oil and gas sector. Learn more about how to get involved and work toward solutions at [www.momscleanairforce.org](http://www.momscleanairforce.org).

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FIGHTING FOR  
OUR KIDS' HEALTH