

Years of Studies Reveal the Negative Health Effects of Fracking

Of the studies looking specifically at health impacts of unconventional gas development (UGD), more than 80 percent document risk or actual harms.ⁱ

The fracking industry is an 'uncontrolled health experiment on an enormous scale'.ⁱⁱ

'The arguments against fracking on public health and ecological grounds are overwhelming. There are clear grounds for adopting the precautionary principle and prohibiting fracking.'ⁱⁱⁱ



Toxic Cocktail

Of identifiable chemicals used in 944 industry products, more than 75% could affect the skin, eyes, other sensory organs, the respiratory and gastrointestinal systems; 40-50% could cause nervous, immune and cardiovascular system and kidney problems; and 25% could cause cancer and mutations; 37% could affect the endocrine system. High concentrations of endocrine disrupters documented in air and water around fracking sites are linked to sperm abnormalities, reduced fetal growth, cardiovascular disease, respiratory dysfunction and asthma and possibly reduced fertility.^{iv v vi vii viii} In 2016, researchers documented endocrine-disrupting chemicals in surface waters near fracking wastewater disposal sites that can have potent effects on human development at exceedingly low concentrations during critical developmental windows.^{ix x xi} A 2016 Yale study found that of the 1,117 water pollutants and 143 air pollutants found in fracking fluids and wastewater, 55 chemicals could be classed as known, probable or possible human carcinogens.^{xii}



Community Health

The fracking industry brings with it wider community changes that can impact on health and wellbeing. Around wellpads, workers and nearby residents are exposed to continuous noise and light pollution from drilling, fracking, flaring, and compressor stations. Increases in traffic and congestion from thousands of trucks during construction, drilling, fracking and waste disposal have seen rises in the rates of road accidents linked to the fracking industry.^{xiii} Exposure to noise pollution is linked to cardiovascular disease, cognitive impairment and sleep disturbance, while there is emerging evidence that continuous artificial light exposure is linked to breast cancer in women.^{xiv} Symptoms reported by residents living near gas drilling sites, include increased skin rashes, nausea and vomiting, abdominal pain, breathing difficulties, coughs, nosebleeds, anxiety and stress, headaches, dizziness, eye and throat irritation, increased rates of hospitalization, numbers of patients with heart and skin conditions, tumors, urological conditions and migraine headaches, chronic rhinosinusitis and fatigue symptoms.^{xv xvi xvii}



Children's Health

Adverse health outcomes in babies born to mothers living in the vicinity of well pads, include increases in low birth weights congenital heart defects, premature births, high-risk pregnancies and even a rise in infant mortality.^{xviii xix xx xxi xxii} Further, researchers from the Yale School of Public Health have recently identified 20 compounds associated with childhood leukemia and lymphoma in fracking fluids and waste.^{xxiii}



Workers' Health

Exposure to silica dust is definitively linked to silicosis and lung cancer and workers are exposed to respirable crystalline silica at levels 'sufficient to pose a significant health risk' in addition to fatalities, head injuries, traffic accidents, blunt trauma, burns, toxic chemical exposures, heat exhaustion, dehydration, and sleep deprivation.^{xxiv xxv xxvi xxvii}



Water Contamination and Air Pollution

Air born chemicals that leak from pipes, well-heads and other infrastructure combined with air pollution from site traffic and equipment, are thought to be a key cause of many of the health symptoms reported by people living near gas fields. Natural gas is largely methane - a greenhouse gas 86 times more potent than CO₂ in the 20-year timeframe.^{xxviii xxix} Large amounts of methane leak into the atmosphere throughout the lifecycle of gas development and production, compared to coal or oil, UGD likely as bad or worse for climate change, which increases the risks of the spread of infectious disease, exacerbation of underlying illnesses, threatening food production, access to potable water, social stability and global security. Spills, leaks and accidents of fracking and drilling fluids or waste at the surface that can also pose a threat to water, air and soil with one study reporting more than one spill for every three wells drilled.^{xxx} With estimates of well failure on newly drilled wells ranging somewhere between 5-9%, and at upwards of 50% during their lifespan the threat to water, air and soil posed by potential spills, leaks and accidents of fracking and drilling fluids or waste at the surface are concerning with reported evidence of widespread and persistent contamination of water and soils with salts, heavy metals, radioactive elements and other toxic materials associated with unconventional oil drilling.^{xxxi} A Pennsylvania Department of Environmental Protection study revealed that 243 private water supplies had been contaminated by waste 'flowback fluid'.^{xxxii} Analyzed medical records reveal statistically significant association between proximity to active fracking operations and mild to severe asthma exacerbations.^{xxxiii}

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Please contact us to learn more about addressing the health impacts of the unconventional gas development industry.



Tammy Murphy, M.A., LL.M.
Medical Advocacy Director
Physicians for Social Responsibility - Pennsylvania
1501 Cherry Street, Philadelphia, PA 19102
tammy@psrphila.org 215.749.0960

Laura Dagle, BSN, RN
Medical Advocacy Coordinator
Physicians for Social Responsibility - Pennsylvania
Pittsburgh, Pennsylvania
laura@psrphila.org 540.556.0132