

HOW SHALE GAS DEVELOPMENT (FRACKING) AFFECTS PUBLIC HEALTH

Multiple risks to our health and environment

ISSUES

Fracking:

- Disrupts natural environment such as land and publicly accessible water
- Creates extensive infrastructure in multiple stages and sites
- Produces large amounts of liquid and solid waste

Health concerns:

- Chemical release associated with resource extraction such as endocrine disrupting chemicals
- Release of Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) and Naturally Occurring Radioactive Material (NORM)

Inequality:

- Environmental justice
- Eminent domain
- Economic destabilization

ENVIRONMENTAL PATHWAY(S) OF EXPOSURE

CHEMICAL AND PHYSICAL POLLUTANTS







Liquid/solid waste



EXPOSURE PATHWAY(S) DISRUPTING HEALTH







WHO IS IMPACTED





Population

Magnitude of exposure such as:

- Duration
- Frequency
- Toxicity
- Distance/proximity to sources
- Source of emission and stage of production
- Aggregate/combination of emissions

Vulnerability of the individual

Occupational hazard

SHORT-TERM HEALTH EFFECTS

- Stress
- Eye, nose, throat irritation
- Skin irritation
- Headache
- Dizziness
- Nausea
- Asthma attacks
- Chest pains
- Acute bronchitis
- Short-term memory impairment
- Decreased exercise tolerance
- Adverse effects on developing fetus



LONG-TERM HEALTH EFFECTS

- Worsening lung or heart disease
- Asthma
- Chronic bronchitis
- Cancer such as nasal, throat, and lung
- Lifelong outcomes from adverse effects on developing fetus
- Leukemia
- Aplastic anemia





Visit <u>environmentalhealthproject.org</u> for more information.