Resource Guide to Key Environmental Public Health Assets

Key public health assets included:

- State and Local Health Department
- State Environmental Department
- Agency for Toxic Substances and Disease Registry (ATSDR)
- Environmental Protection Agency (EPA)
- Food and Drug Administration (FDA)
- National Center for Environmental Health (NCEH)
- National Institute for Occupational Safety and Health (NIOSH)
- Occupational Safety and Health Administration (OSHA)

Produced for the Understanding and Utilizing the Environmental Public Health System Course
By the American College of Medical Toxicology
About This Document

Who would you call if a patient told you that she was handling a dangerous chemical at work without appropriate protective gear? Who would you notify if you treated a group of children that encountered a drum filled with “toxic waste” in the woods? From local health departments to the Centers for Disease Control and Prevention (CDC), there are many resources available to help.

*This resource can be used to learn about the environmental public health system.* Read through it to see the breadth of public health resources that are available. While the resources provided herein are not inclusive of every environmental public health asset, this document does contain the key assets a physician would most likely partner with to assist in the case of an environmental exposure.

*This resource can be used as a reference.* Reference this guide if ever you need assistance with an environmental public health problem.

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Medical Toxicologist or Poison Center

Clinical Assistance with a Case

Medical toxicologist

A medical toxicologist can:
- Provide consultation with case management.
- Assist with obtaining and interpreting specialty toxicology laboratory tests.
- Identify other public health assets as needed.

Find a Medical Toxicologist directory: http://www.acmt.net/cgi/page.cgi/findtoxicologist.html.

Poison Control Center. Poison control telephone consultation 24 hours a day, seven days a week.
- Poison Help Line: 1-800-222-1222.

Other clinical resources

- Pediatric Environmental Health Specialty Units (PEHSU) network search function: http://www.aoec.org/pehsu/index.html.
State and Local Health Department

In cases of suspected or confirmed environmental exposures, contact your State or Local Health Department first.

Contacts and Resources

- Local Health Department contact information: [www.naccho.org/about/LHD/index.cfm](http://www.naccho.org/about/LHD/index.cfm).
- State Health Department information: [http://www.cdc.gov/mmwr/international/relres.html](http://www.cdc.gov/mmwr/international/relres.html).

Information

**Investigation status.** Status of a health department investigation into a potential environmental health hazard affecting multiple people.

**Available clinics.** Health clinics which may be available to screen or evaluate patients.

**Available inspection resources.** Available resources for inspection of public or private facilities, or properties.

Local health department contact information: [www.naccho.org/about/LHD/index.cfm](http://www.naccho.org/about/LHD/index.cfm)

Reporting

Call your State or Local Health Department as a first response. They investigate environmental hazards, answer monitoring questions, and provide referrals to other contacts and agencies as needed.

**Illness.** To report an illness from an environmental source.

**Hazard.** To report a suspected environmental hazard.

**Meeting assistance.** To offer your assistance or provide timely health communications to a large audience or to the community regarding an environmental hazard.

Contact your State or Local Health Department using the links provided above.
State Environmental Department

State Environmental Protection Resources

**Incidents and monitoring results.** Environmental monitoring results or other aspects of an environmental exposure incident.

**Emergency cleanup.** State or local resources for emergency cleanup of chemical spills or accidental releases.

**Water testing companies** for private well or ground water supplies.

**Screening and risk assessment.** State screening levels and risk assessment requirements.

Contact information for state government environmental protection resources: [http://www2.epa.gov/home/state-and-territorial-environmental-agencies](http://www2.epa.gov/home/state-and-territorial-environmental-agencies). If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information you receive.

Reporting and Response for Suspected State Environmental Regulation Violations

**Hazardous sites.** Hazardous waste or spill sites.

**Tracking.** Remedial response to a large chemical spill (e.g., an elemental mercury spill) or tracking of chemicals such as elemental mercury between locations.

**Private environmental testing.** Industrial hygiene, environmental engineering, or environmental consulting companies which test water, soil, dust, air, or foodstuffs for chemical contamination.

**Reporting.** Reporting of an apparent violation of an EPA or state environmental regulation.

Listings of all state and territorial environmental protection agency access points: [http://www2.epa.gov/home/state-and-territorial-environmental-agencies](http://www2.epa.gov/home/state-and-territorial-environmental-agencies).
Chemical and Toxicological Properties, Minimal Risk Levels, and Exposure Guidelines

Hazardous substances in the ToxProfiles. Chemical and toxicological properties of hazardous substances encountered in environmental settings or minimal risk levels of hazardous materials that may be found in the ATSDR ToxProfiles.

ATSDR Toxicological Profiles (i.e., ToxProfiles): http://www.atsdr.cdc.gov/toxprofiles/index.asp#bookmark05. ATSDR maintains toxicological profiles on a large number of toxic chemicals and physical hazards frequently encountered at “Superfund” hazardous material sites. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Safe Re-entry Levels

Mercury spills


Case Studies

For clinical evaluations. Case studies useful in the clinical evaluation of patients with potential exposure to different types of chemical and physical hazards.

Case Studies in Environmental Medicine: http://www.atsdr.cdc.gov/csem/csem.html. These case studies are designed to increase providers’ knowledge of hazardous substances and promote adoption of medical practices that aid in the evaluation and care of potentially exposed patients. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.
Community Investigation Requests

**Hazardous materials in soil, water, air, and dust.** ATSDR investigates community exposures related to chemical sites and releases; works closely with federal, tribal, state and local agencies to identify potential exposures, assesses associated health effects, and recommends actions to stop, prevent or minimize these harmful effects. The ATSDR Regional Office may be involved with current or past site investigations and can be contacted for information. The Regional office may also be contacted directly if you think that a new investigation is needed.

- ACMT-ATSDR regional consultation network: [http://www.acmt.net](http://www.acmt.net) > Member Center tab > ATSDR sub-option.

Emergency Response

**Evacuation advisement.** ATSDR scientists can advise local officials about when to evacuate communities, when to allow residents to return, and how to ensure the safety of responders and medical professionals.

- 24-Hour Emergency Operations Center (EOC), Atlanta, Georgia: 1-770-488-7100. This is maintained by CDC/ATSDR. ATSDR Duty Officers assist with chemical emergencies; CDC Duty Officer assists with biological and chemical warfare agents, natural disasters, and oil spills.
Air Quality, Water Quality, and Pollutants

**Conditions by location.** Air quality, water quality, or exposure to pollutants at a specific location.

**Water standards.** Primary or secondary drinking water standards.

MyEnvironment search application: [http://www.epa.gov/myenvironment/](http://www.epa.gov/myenvironment/). The MyEnvironment search application is designed to provide a cross-section of environmental information based on the user's location. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Reference Dose or Concentration of Environmental Chemicals

**Chronic exposure data in IRIS.** Risks associated with low level, long term exposure to environmental chemicals, including reference doses, reference concentrations, or cancer slope factors (carcinogenic potency).

Integrated Risk Information System (IRIS): [http://www.epa.gov/iris/](http://www.epa.gov/iris/). IRIS is a database of information regarding the dose or concentration of environmental chemicals associated with non-cancer and cancer health risks. (Reference doses are defined as concentrations considered safe for a lifetime of continuous exposure by the indicated route.)

**Short term exposure data in AEGLs.** Acute or sub-acute risk to human health posed by short term exposure to airborne levels of environmental or industrial chemicals accidentally released into the environment.

Acute Emergency Guideline Level (AEGL) database: [http://www.epa.gov/oppt/aegl/pubs/chemlist.htm](http://www.epa.gov/oppt/aegl/pubs/chemlist.htm). The AEGL database contains quantitative information on airborne levels of chemicals associated with health effects of varying severity after short term exposure intervals (minutes to weeks). If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.
EPA Compliance Documentation

Laws, regulations, policies, requirements, and enforcement

EPA Laws and Regulations: http://www2.epa.gov/laws-regulations. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Reporting of Apparent EPA Violations

History and enforcement. List of EPA actions regarding a particular issue or reporting for an apparent violation of an EPA regulation.

Federal EPA enforcement site for air, water, hazardous waste and other issues: http://www2.epa.gov/enforcement. This provides information on the enforcement divisions and/or emergency response divisions of EPA regional offices.

Regional spills and environmental violations. Reporting of environmental emergencies and other sudden threats to public health, such as oil and/or chemical spills, radiation emergencies, and biological discharges.

National Response Center: 1-800-424-8802.
Superfund Information and Investigation

**Superfund sites in your area and related information.** Superfund is the federal government's program to clean up the nation’s uncontrolled hazardous waste sites. Superfund sites include those on the National Priorities List (NPL), archived (cleaned up) sites, Brownfield, and Emergency Response clean-ups.

- Information about Superfund sites in your area, the health effects of common contaminants, cleanup efforts, the economic benefits of this program, and how you can become involved in cleanup activities in your community: [http://www.epa.gov/superfund/index.htm](http://www.epa.gov/superfund/index.htm).
- All types of Superfund sites which can be searched by region and site contact information: [http://www.epa.gov/superfund/sites/index.htm](http://www.epa.gov/superfund/sites/index.htm).

**Sites on the National Priority List.** Information about the investigation or remediation of a specific hazardous waste site enrolled on the National Priority List (i.e., a federal Superfund site), or notification requests for upcoming events related to the investigation.

Contact information for the Superfund branch of EPA regional offices: [http://www.epa.gov/ppcp/contacts2.html](http://www.epa.gov/ppcp/contacts2.html).
Chemicals in Foods

Safe levels of chemicals in foods.

Foodborne Illness & Contaminants: [http://www.fda.gov/Food/FoodborneIllnessContaminants/](http://www.fda.gov/Food/FoodborneIllnessContaminants/). If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Reporting through MedWatch

Adulterations in folk medicines or supplements. Reporting of exposures to heavy metals or other hazardous ingredients, or exposures to adulterants in folk medicines (e.g., Ayurvedic remedies) or herbal dietary supplements.

Adverse event with food, drugs, or supplements. Reporting of a significant or unusual adverse event associated with a drug, dietary supplement, or contaminated food product.

Recall assistance. Governmental assistance in the recall of a dangerous drug, cosmetic, or dietary supplement.

FDA’s MedWatch reporting system: [http://www.fda.gov/Safety/MedWatch/default.htm](http://www.fda.gov/Safety/MedWatch/default.htm). This is the FDA’s gateway for clinically important safety information and reporting adverse events and serious problems with human medical products.

Office of Compliance, Center for Drug Evaluation and Research (CDER) at FDA for significant issues: 1-888-INFO-FDA (1-888-463-6332).
NCEH

National Reference Data on Environmental Chemicals

Blood or urine concentrations. Reference data on blood or urine concentrations of environmental chemicals measured in a representative sample of the U.S. population by the CDC as part of the National Report on Human Exposure to Environmental Chemicals.

National Report on Human Exposure to Environmental Chemicals: http://www.cdc.gov/exposurereport/. This report on determinations of multiple environmental chemicals measured in the blood and/or urine of the U.S. population is updated biannually. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Clinical Lab Testing

Laboratory information for chemical emergencies. CDC has resources to assist in laboratory testing. In most cases, you should initiate contact with local health authorities first, and those resources will call for federal support. You can obtain and freeze blood and urine specimens before you have identified resources that will perform testing. CDC assists in developing laboratory capacity for chemical terrorism preparedness and chemical emergencies. CDC maintains a Laboratory Response Team around the clock to respond to a chemical event. CDC has developed a battery of assays, the Rapid Toxic Screen, intended to identify chemicals that may be used in a chemical attack.

- Listing of lab resources related specifically to chemical emergencies, including information on lab sample collection and the Laboratory Response Network (LRN): http://www.bt.cdc.gov/chemical/lab.asp.
- Laboratory Response Team (LRT): http://www.cdc.gov/biomonitoring/laboratory_response.html
- Rapid Toxic Screen: http://www.cdc.gov/biomonitoring/rapid_tox_screen.html

Division of Laboratory Sciences (DLS). DLS responds to public health emergencies involving chemicals through the development, improvement and implementation of laboratory methods to diagnose and prevent disease. The Division is also the primary laboratory of the chemical component of the Laboratory Response Network, which includes 54 public health laboratories across the US.

Division of Laboratory Sciences: http://www.cdc.gov/nceh/dls/
Epi-Aid Investigations

Epidemiological assistance. Epi-Aids are requests for epidemiological assistance within the United States and throughout the world. Requests to assist with emergency responses, investigate infectious and environmental disease outbreaks, and quantify impact of diseases are examples of Epi-Aid responses.

- Epi-Aid Investigation Requests, 24-Hour Emergency Operations Center (EOC), Atlanta, Georgia: 1-770-488-7100. This is maintained by CDC/ATSDR.

Advanced Investigation Requests

Exposure or illness outbreak with a major impact. Advanced technical assistance with an investigation of a potential environmental chemical exposure or illness outbreak that may have had a major impact on public health.

- ACMT-ATSDR regional consultation network: http://www.acmt.net > Member Center tab > ATSDR sub-option.

Reporting of Cruise Ship Illnesses

Vessel Sanitation Program. Reporting of a potential toxin/toxicant cause of illnesses on a cruise ship.

- NCEH’s Vessel Sanitation Program (via CDC-INFO line): 1-800-232-4636.
- CDC 24-hour Emergency Operations Center: 1-770-488-7100.
NIOSH Workforce Recommended Exposure Limits

Data on chemical hazards at work. Hazardous properties, recommended exposure limits (RELs), and other data pertaining to chemical exposures in the workplace.

NIOSH Pocket Guide to Chemical Hazards: http://www.cdc.gov/niosh/npg/. This guide contains key data on chemical properties, health effects, and protective measures for numerous chemical hazards.

Workplace Chemical Measurements

Methodologies appropriate for the measurement of chemicals in workplace air and dust.

Methodologies provided on the NIOSH Publications and Products page: http://www.cdc.gov/niosh/docs/2003-154/. Consider consulting with an industrial hygienist to interpret or discuss this information.

Workplace Investigation Requests

Health Hazard Evaluation for novel, complex, or widespread exposures. Requests for a Health Hazard Evaluation (HHE) of a workplace, particularly when the concern relates to novel or complex technologies, and/or severe adverse impacts to multiple employees.

Encourage your patient to personally request a Health Hazard Evaluation from the Health Hazard Evaluation Program at NIOSH: http://www.cdc.gov/niosh/hhe/. In addition, with the patient’s consent, consider contacting NIOSH to provide details about the patient’s health status and potential workplace exposure.

Prior Health Hazard Evaluations. Prior Health Hazard Evaluations conducted in the workplace, including recommendations for hazard prevention or mitigation.

Health Hazard Evaluation Reports: http://www.cdc.gov/niosh/hhe/. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.
Occupational Exposure Management or Decontamination

Emergency response information. Issues surrounding emergency management or decontamination following an occupational exposure.

NIOSH Emergency Response Safety and Health Database: http://www.cdc.gov/niosh/ershdb/. This database contains information on agents that could be encountered by personnel responding to an occupational accident or terrorist event. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.

Healthcare Worker Issues


NIOSH List of Antineoplastic and Other Hazardous Drugs in Healthcare Settings: http://www.cdc.gov/niosh/docs/2012-150/pdfs/2012-150.pdf. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.
OSHA

Reporting Unsafe Workplace Exposures

If known or potential health risks. Reporting of an unsafe workplace or an occupational exposure posing a known or potential health risk to a patient or employee.

- Encourage your patient to call federal or state OSHA to register a confidential or non-confidential complaint, and to request a workplace inspection. In addition, with the patient’s consent, consider contacting the same federal or state OSHA office on behalf of the employee to provide additional information regarding their health status and potential exposure.
- OSHA enforcement services, Office of State Programs: 1-202-693-2244.

Note: In some states, OSHA programs include consultation services that are entirely separate from the OSHA enforcement division. OSHA consultation services offer employers assistance without triggering potential enforcement actions and penalties.

Workplace Permissible Exposure Limits and Exposure Monitoring

Regulations and standards. Permissible workplace exposure limits (PELs) for specific industrial chemicals and physical hazards; exposure monitoring, biological monitoring, and medical surveillance for specific occupational chemicals and physical hazards.

Occupational Safety and Health Administration: https://www.osha.gov/pls/oshaweb/owasrch/search_form?p_doc_type=STANDARDS&p_toc_level=1&p_keyvalue=1910. If you are not a medical toxicologist, consider consulting with one to interpret or discuss the information.
Other Resources

ACMT.net

**Toxicology Reference Data and other links.** Contaminant properties, risk levels, exposure guidelines, toxicology databases and websites, or other exposure-related topics.

Toxicology Reference Data and other resources and links:
http://acmt.net/resources_tex.html.

Private Environmental Investigation

**Consulting resources.** To engage private environmental investigation resources.

Internet resources and other directories (e.g., phone directory yellow pages) contain listings of consultants by keywords, such as *industrial hygiene*, *environmental engineers*, and *hazardous materials*. 
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