

The Use of the Internet for Children's Health and the Environment

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The use of the Internet for all medical purposes has grown tremendously in the last several decades [1–4]. Among professionals the Internet can be used as a means of communication (ie, e-mail) and, as emphasized in this article, as a means of information retrieval.

The Internet, also known as the World Wide Web, is particularly useful for retrieving information related to children's environmental health. Many international agencies, many governmental agencies in the United States, Canada, and elsewhere, and many nongovernmental organizations (NGOs) have created websites specifically to disseminate environmental health information. In fact, some environmental health information, for example, some of the toxicology and other databases on the National Library of Medicine (NLM) Website (<http://tox.nlm.nih.gov>) or NGO Websites such as Scorecard (<http://scorecard.org/>), are available only on the Internet.

Bonus material pertaining to this article is available online at www.pediatric.theclinics.com. See notation within this article for details.

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Obtaining information about children's environmental health on the Internet

Numerous government agencies, organizations, and medical associations have developed Web-based resources and/or databases related to environmental health and toxicology. This section highlights the NLM resources and reviews several other government agencies and organizations. Information about additional environmental health and toxicology resources can be found on the NLM's Toxicology Web Links web page (<http://sis.nlm.nih.gov/enviro/toxweblinks.html>).

Because of the reliability of information on these sites, their ease of use, and the ability to reach so many databases simultaneously if needed, these sites should be the first accessed when searching for information about children's health and the environment.

National Library of Medicine's Toxicology and Environmental Health Information Program

Since the late 1960s, the NLM's Toxicology and Environmental Health Information Program has developed and made accessible databases and other resources for the scientific community and, more recently, for the public. The NLM's Environmental Health and Toxicology Portal ([Fig. 1](#)) contains links to an extensive collection of databases and other Web-based resources covering many environmental health and toxicology topics. These resources include bibliographic databases, online toxicology handbooks, a chemical and drug dictionary, directories, webliogrphahies (bibliographies of Web links or a list of links), and tutorials in toxicology.

One of NLM's major resources is TOXNET (<http://toxnet.nlm.nih.gov>), a collection of databases ([Box 1](#)).

The databases listed in [Box 1](#) are primarily oriented toward health professionals and scientists. Following a government-wide effort to create and provide health information to the general public, the NLM recently created several new resources designed for a wider audience ([Box 2](#)).

As a portal for environmental health information, the NLH's Toxicology and Environmental Health Information Program website (<http://tox.nlm.nih.gov>) contains other useful resources ([Box 3](#)).

Other websites of interest for children's environmental health

Agencies of the United States government

The US Environmental Protection Agency (EPA) (www.epa.gov) is the primary federal agency responsible for protecting human health and the environment. The EPA has the authority to promulgate regulations to improve the environment and protect human health. The EPA has a number of program offices (eg, air, water, research and development), regional offices, and laboratories. The Office of Children's Health Protection

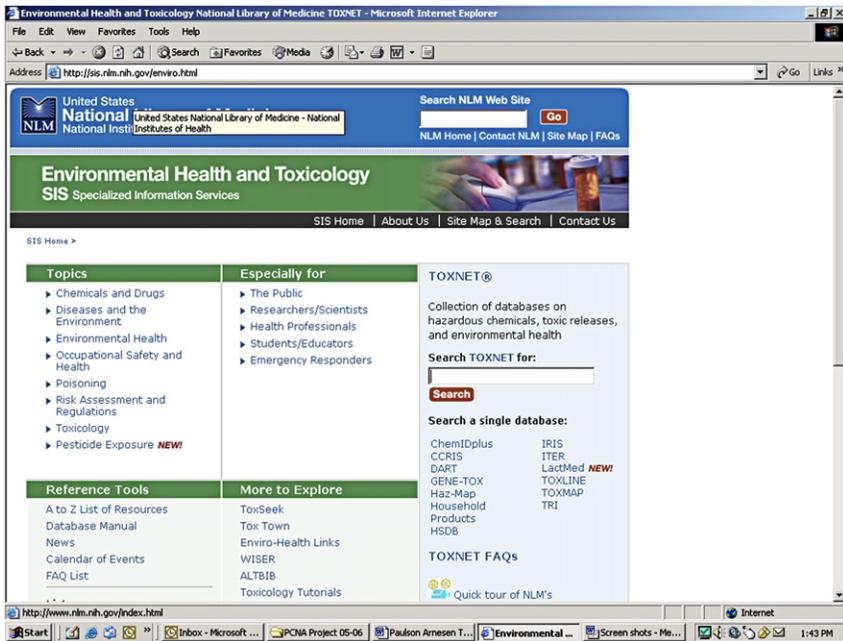


Fig. 1. Screen shot of the National Library of Medicine Environmental Health and Toxicology Portal.

(<http://yosemite.epa.gov/ochp/ochpweb.nsf/homepage>) is part of the Office of the EPA Administrator. The Office of Children's Health Protection and the other program offices maintain an extensive set of web pages. Many are accessible from a menu on the EPA home page (www.epa.gov), where one can click, for example, on lead (<http://www.epa.gov/lead/>), or water (<http://www.epa.gov/ebtpages/water.html>), or acid rain (<http://www.epa.gov/airmarkets/arp/>), or mold (<http://www.epa.gov/mold/moldresources.html>). Along the left side of the EPA home page is a menu where one can click on Information Sources (<http://www.epa.gov/epahome/resource.htm>) to access an extensive catalogue of information and materials available from the EPA. Within that page, one can click on Databases and Software (<http://www.epa.gov/epahome/Data.html>) to find a list of online and downloadable tools to access environmental data from the EPA. Some materials of specific interest might include Envirofacts (<http://www.epa.gov/enviro/>), a national information system that provides a single point of access to data extracted from seven major EPA databases, and Window To My Environment (<http://www.epa.gov/enviro/wme/>), a program that uses interactive maps and tools to answer popular questions about local environmental conditions affecting air, land, and water.

The Agency for Toxic Substances and Disease Registry (ATSDR) (<http://www.atsdr.cdc.gov/>), a part of the US Department of Health and Human

Box 1. Databases in TOXNET**(Available at: <http://toxnet.nlm.nih.gov/>)**

- ChemIDplus: dictionary of nearly 400,000 chemicals (names, synonyms, structures); includes links to chemical information from NLM resources and other resources
- Hazardous Substances Data Bank (HSDB): comprehensive peer-reviewed toxicologic data on approximately 4800 chemicals; contains excerpts from the published literature and covers human health effects, emergency medical treatment, animal toxicity studies, environmental fate and exposure, standards and regulations, chemical safety and handling, chemical and physical properties, and manufacturing and use information
- TOXLINE: contains more than 3 million references from MEDLINE/PubMed (TOXLINE Core) and other toxicology literature, including research in progress and meeting abstracts (TOXLINE Special)
- Chemical Carcinogenesis Research Information System (CCRIS): a National Cancer Institute database on the testing of more than 8000 chemicals for carcinogenicity, mutagenicity, tumor promotion, and tumor inhibition
- Developmental and Reproductive Toxicology (DART): contains more than 225,000 references to the teratology, developmental, and reproductive toxicology literature from 1980 to the present
- GENETOX: Peer-reviewed mutagenicity test data from Environmental Protection Agency (EPA)
- Integrated Risk Information System (IRIS) hazard identification and dose-response assessment data on more than 500 chemicals
- International Toxicity Estimates of Risk (ITER) chemical risk data from resources world wide
- LactMed: peer-reviewed and fully referenced database of drugs to which breastfeeding mothers may be exposed. Includes maternal and infant levels of drugs, possible effects on breastfed infants and on lactation, and alternate drugs to consider.
- Toxics Release Inventory (TRI): an EPA database of annual reports on the environmental release of more than 600 chemicals by industrial facilities in the United States
- Haz-Map: an occupational health database designed for health and safety professionals and for consumers seeking

information about the health effects of exposure to chemicals and biologicals at work

- Household Products Database: This database links many consumer products to health effects information from Material Safety Data Sheets (MSDS) provided by the manufacturers.
- TOXMAP: a geographic information system displaying interactive maps of TRI, Superfund, and other health and demographic data; provides links to additional information on the toxic chemicals

Services and closely linked to the National Center for Environmental Health of the Centers for Disease Control (CDC), has a number of responsibilities that include gathering and maintaining information concerning the effect of hazardous substances in the environment on public health. It publishes a series of documents known as “Toxicological Profiles” containing detailed information on several hundred chemicals (<http://www.atsdr.cdc.gov/toxpro2.html>). All the Toxicological Profiles contain a section specifically on the health hazards of the substance to children. The ATSDR also creates easy-to-read excerpts of these profiles called “ToxFAQs” (<http://www.atsdr.cdc.gov/toxfaq.html>), which can be very useful for providing information to patients and at public meetings.

Box 2. National Library of Medicine databases targeted for the general public

- Tox Town (<http://toxtown.nlm.nih.gov>): an interactive guide to potentially toxic substances and environmental health issues in everyday places. Several scenes, including a town, city, farm, and the US-Mexico border are available for exploration.
- Household products (<http://householdproducts.nlm.nih.gov>): a database of more than 6000 household products, their ingredients, and potential health effects; information is derived from product labels and Material Safety Data Sheets (MSDS).
- MedlinePlus (<http://medlineplus.gov>): links to authoritative health information on more than 700 health topics, including more than 30 environmental health and toxicology topics (<http://www.nlm.nih.gov/medlineplus/poisoningtoxicologyenvironmentalhealth.html>); also contains interactive tutorials, drug information, a medical dictionary and encyclopedia, and directories of health professionals and organizations in the United States; also available in Spanish

Box 3. Resources available at the NLH's Toxicology and Environmental Health Information Program Web site (<http://tox.nlm.nih.gov>)

- Toxicology Tutorials (Tox Tutor): a series of three tutorials on the basic principles of toxicology, toxicokinetics, and cellular toxicology. The NLM and the U.S. Society of Toxicology currently are updating and expanding these tutorials.
- Enviro-Health Links (<http://sis.nlm.nih.gov/enviro/envirohealthlinks.html>): summaries and "lists of links" or bibliographies on current topics of interest in toxicology and environmental health including
 - Children's environmental health (<http://phpartners.org/cehir/sampler.html>)
 - Arctic health
 - Agents of chemical and biologic warfare
 - Arsenic
 - Indoor and outdoor air pollution
 - Pesticide exposure
 - West Nile virus
 - Toxicogenomics
 - General toxicology
 - Education and careers in toxicology and environmental health
- Tox-Enviro Listserv: an announcements-only listserv to keep up-to-date with new environmental health and toxicology resources from NLM. Join by registering at <http://sis.nlm.nih.gov/enviro/envirolistserv.html>.
- DIRLINE (<http://dirline.nlm.nih.gov>): a directory of health-related organizations including several hundred environmental health and children's health resources

In addition, the ATSDR has developed two continuing education case studies related to children's environmental health: Pediatric Environmental Health (<http://www.atsdr.cdc.gov/HEC/CSEM/pediatric/index.html>) and Environmental Triggers of Asthma (<http://www.atsdr.cdc.gov/HEC/CSEM/asthma/index.html>). These case studies are part of a series of self-instructional publications designed to increase the primary care provider's knowledge of hazardous substances in the environment and to aid in the evaluation of potentially exposed patients. Continuing medical education, continuing nursing education, and continuing education credits are provided.

The National Center for Environmental Health (<http://www.cdc.gov/nceh/>) of the CDC provides public health surveillance and applied research related to environmental health hazards. Its website provides information

on air pollution (<http://www.cdc.gov/nceh/airpollution/>), asthma (<http://www.cdc.gov/asthma/default.htm>), lead exposure (<http://www.cdc.gov/nceh/lead/lead.htm>), and a number of other topics. One of the most important recent undertakings of the National Center for Environmental Health related to children's health is the National Exposures Report. This report, based on information collected from a representative sample of the noninstitutionalized United States population, measures chemicals or their metabolites in blood, urine, or other biologic materials. The most recent report of biomonitoring described the presence of 148 chemicals in people of all ages in the United States (<http://www.cdc.gov/exposurereport/>).

Other resources

A number of organizations have children's environmental health as their primary or significant focus. The Children's Environmental Health Network (CHEN) (<http://www.cehn.org>) is one of the major organizations providing information to health care professionals and the public. CEHN is a national, multidisciplinary organization dedicated to protecting the fetus and the child from environmental hazards and to promoting a healthy environment. Its website provides an overview of children's environmental health issues, a training manual on pediatric environmental health, and a resource guide of related programs, projects, and organizations. The CEHN also sponsors listservs for the exchange of ideas related to children's environmental health.

Another organization, the Children's Health Environmental Coalition (<http://www.hecnet.org>), works to educate the public, specifically parents and caregivers, about environmental toxins that affect children's health. Although the information is geared toward consumers, the resources also are useful for health professionals. The Children's Health Environmental Coalition has developed an interactive resource, HealthHouse, for information about environmental health risks children face at home. All of the information is reviewed by toxicologists and endorsed by the Children's Health Environmental Coalition Science Advisory Committee.

The American Academy of Pediatrics website (<http://www.aap.org/healthtopics/environmentalhealth.cfm>) contains several articles on various children's environmental health topics including lead and mercury poisoning, air pollution, and terrorism. The American Academy of Pediatrics also published the second edition of *Pediatric Environmental Health* in 2003.

International organizations also are working to reduce environmental health risks to children. For example, the World Health Organization sponsors a Task Force for the Protection of Children's Environmental Health (<http://www.who.int/ceh/en/>). The mission is to prevent disease and disability in children associated with chemical and physical threats and biologic risks in the environment. The website contains basic information on children's environmental health issues and descriptions on ongoing projects and national profiles.

There are dozens of websites with information about children's health and the environment. The web-based version of this article contains a table listing many of those resources.

Other means of finding information on the Internet

The Internet is so useful because it allows anyone with access to a computer with web browser software and a connection to the Internet to look at information in multiple formats: text, photographic, and other graphic formats, tables, sound, and video. An advantage unique to the Internet is easy and rapid linking from one document to another.

One of the challenges to the use of the Internet is finding the information that one wants in a timely fashion. There are millions of websites and billions of individual's web pages, and there are several different approaches to finding information [5].

Browsing

One can identify a particular website that is useful. Many sites have identified links (ie, the addresses [URLs], of other similar websites). One can follow those links electronically to the other sites. This process is known as browsing. Although it can be helpful at times, it often is inefficient, and the links may be to a very narrow range of sites.

Searching

It is more desirable to use some methodology to search actively for and identify websites. One can use web search engines, web directories, or web indexes. Most individuals will be familiar with one or more of the better-known search engines: Google (www.google.com), Yahoo! (www.yahoo.com), and LookSmart (www.looksmart.com). Some search engines have been created to search other search engines; these include Dogpile (www.dogpile.com) and Search.com (www.search.com). All search engines have a box in which to enter search terms. In determining which search engine to use, one should look for advanced search capabilities, such as the ability to combine words or to search for exact phrases, and consider the ease of use of the search site.

Other search methods

Many websites have an internal search system. Often, there is a box labeled "search," in which one may enter a term and look for information within the site itself. For example, the EPA website (www.epa.gov) has a search box in the center of the page and a link to a page that allows one to do more advanced searching. Also on the EPA home page is an example of a directory—a list of EPA's major topics—that allows rapid access to the appropriate pages within the EPA website. Many other Web sites,

such as the Centers for Disease Control and Prevention (www.cdc.gov) or the Natural Resources Defense Council (www.nrdc.org), also have internal search engines and directories.

Databases

Databases can provide quick and efficient access to specific detailed information on a topic. An earlier section provided detailed information about some of the databases maintained by the NLM and other organizations. In some instances, it may be useful to search more than one database for information [6].

Evaluating websites

The Internet's ease of access to a myriad of information is also one of its pitfalls. Anyone with a modicum of skill can post information on the Internet. Unlike most print media or radio or television, there are no editors, no fact checkers, and no other overall means of control. One way to conceive of the Internet is as a huge bookshelf housing books created by individuals with various levels of skills and with various points of view. A book's presence on the shelf does not mean that it is a good or accurate book.

Because the use of the Internet is very much a caveat emptor situation, one must scrutinize a website and decide on the reliability of the information that it contains. The URL gives some information about the origin of the website. For example, the last three letters of the URL constitute the domain name. Most people are familiar with the phrase, "dot com," which technically means a website created by a commercial enterprise. The domain name ".org" usually means a website created by a nonprofit organization, and the domain name ".gov" indicates a website created by a nonmilitary US governmental (federal or state) entity. By looking at the domain name, one can begin to make a judgment about the material on the website (Table 1).

Several organizations have developed criteria for evaluating a website. With funding from the US Agency for Health Care Policy and Research,

Table 1
Domain names

Domain Name	Type of Site
.com	commercial site
.net	commercial site
.gov	US government site
.org	nonprofit site
.edu	higher education organization site
.mil	US military site
.biz	commercial site
.int	international site
country code	two-letter code indicating the country (eg, .br for Brazil and .ca for Canada)

the Health Summit Working Group published *Criteria for Assessing the Quality of Health Information on the Internet - Policy Paper* (Box 4) [7]. Although this document was created to provide suggestions for the evaluation of consumer-oriented website, the criteria also are useful for professionals, particularly in an area such as environmental health, in which evidence-based data are limited and claims may outstrip factual support. The NLM has created an online tutorial on evaluating health information on the Internet. It is targeted more towards consumers than towards professionals but could be of use to all. It is available at <http://www.nlm.nih.gov/medlineplus/webeval/webeval.html>.

Looking at a website, one should be able to determine who created the content of the site, that is, the author of the site, the affiliation of the creator, and a means for contacting the creator. The purpose of the site—to provide information or to sell a product—should be stated clearly. One of the challenges is gauging the accuracy of the information contained in the site. An academic medical center or a US government entity such as the NLM has more credibility and is more likely to provide accurate information about environmental health than Sam the barber. The site should reveal whether the information posted was subject to any system of review. Information on websites should be dated. In a field that changes as rapidly as environmental health, it is important to know if information is outdated. One should be able to identify the source of financial support for a Web site. Just because a website has a commercial sponsor does not make the information invalid, any more than the fact that a website has an academic

Box 4. Criteria for evaluating health information found on the Internet

- **Credibility:** includes the source, currency, relevance/utility, and editorial review process for the information
- **Content:** must be accurate and complete, and an appropriate disclaimer provided
- **Disclosure:** includes informing the user of the purpose of the site, as well as any profiling or collection of information associated with using the site
- **Links:** evaluated according to selection, architecture, content, and back linkages
- **Design:** encompasses accessibility, logical organization (navigability), and internal search capability
- **Interactivity:** includes feedback mechanisms and means for exchange of information among users
- **Caveats:** clarification of whether site function is to market products and services or is a primary information content provider

sponsor or a governmental sponsor makes the information valid. By disclosing information about sponsorship, the creator of the website allows the user to factor that information into an assessment.

The freedom to post material on the Internet has been expanding. In the past, one needed to know certain arcane “languages” such as hypertext markup language (html) to create a web page. Now there are very simple means of creating and modifying web pages. Another new trend is the creation of “wiki” websites. In the past a website could be modified only by its creator or by a hacker. The “wiki” system allows much easier creation of Web sites and also allows anyone to modify the site (usually with a record of the changes). An example of the use of the “wiki” system is the Wikipedia, “the free encyclopedia that anyone can edit” (http://en.wikipedia.org/wiki/Main_Page). The fact that anyone can edit material on “wiki” sites means that the contents must be viewed with great caution.

The Internet frequently has been used to perpetrate outright hoaxes and frauds. If an environmental health claim on the Internet looks too good to be true, it probably is. This problem has been so extensive that the CDC maintains a web page specific to hoaxes that invoke the CDC’s name in an attempt to look credible (http://www.cdc.gov/hoax_rumors.htm). Another site that provides information about possible hoaxes and frauds is the Hoaxbusters website maintained by the Computer Incident Advisory Capability of the US Department of Energy (<http://hoaxbusters.ciac.org/>).

Specific search tools and databases

Table 2 contains a list of key Web sites mentioned in this article. It is not the purpose of this article to promote one commercial search tool over any other.

Google (www.google.com) is one of the most widely used search tools and is considered by some to be one of the better search tools [8]. One component of Google, called “Google US Government” (<http://www.google.com/ig/usgov>) is relatively unknown but is very useful to individuals looking for information about children’s environmental health or other information that may have been developed by a governmental agency. This portion of Google preferentially searches federal and state Web sites in the United States for information. For example, if one were to search for “mercury” in the regular Google website (Fig. 2), the EPA web page on mercury is the seventh item recovered, and one must click through to the third page of results before finding other environmental health information. The same search at Google US Government gives four links related to mercury and environmental health on the first page of results and others on subsequent pages (Fig. 3). All the material in federal Web site has been vetted, making it a good place to start a search. Material in state-sponsored web pages will provide state-specific data and materials, such as brochures, that have been developed for community use.

Table 2
Key Web sites mentioned in the article

Name	Description	Location and Contact
Agency for Toxic Substances and Disease Registry (ATSDR)	ATSDR's highest priority is to protect America's health from toxic exposures.	http://www.atsdr.cdc.gov/
ATSDR Child Health Initiative	Provides summaries of ATSDR child health programs, such as the Pediatric Environmental Health Specialty Units (PEHSUs) as well as links to Toxicology Profiles and Public Health Assessments	http://www.atsdr.cdc.gov/child/
ATSDR Toxicological Profiles	Provides detailed information on individual hazardous chemicals. All profiles include a section on children.	http://www.atsdr.cdc.gov/toxpro2.html
National Center for Environmental Health (NCEH)	Provides national leadership, through science and service, to promote health and quality of life by preventing or controlling those diseases, birth defects, disabilities, or deaths that result from interactions between people and their environment.	http://www.cdc.gov/nceh/
NCEH Asthma Program	—	http://www.cdc.gov/asthma/default.htm
NCEH Lead Poisoning Prevention Program	—	http://www.cdc.gov/nceh/lead/lead.htm
NCEH Human Exposure Report	Reports on the concentrations of chemicals measured in human bodies.	http://www.cdc.gov/exposurereport/
CDC information on hoaxes & rumors	—	http://www.cdc.gov/hoax_rumors.htm
US Environmental Protection Agency (EPA)	—	http://www.epa.gov
EPA Office of Children's Health Protection	The focus within EPA for all issues related to children's health	http://www.epa.gov/children http://yosemite.epa.gov/ochp/ochpweb.nsf/homepage
EPA Office of Pesticide Programs	The EPA licenses or registers pesticides for use in strict accordance with label directions, based on review of scientific studies on the pesticide to determine that it will not pose unreasonable	http://www.epa.gov/pesticides

EPA Office of Air and Radiation	risks to human health or the environment. For pesticides used on food, EPA sets limits on how much of a pesticide residue may remain in or on foods. EPA also sets standards to protect workers who may be exposed to pesticides on the job.	http://www.epa.gov/oar/ Indoor air web page: http://www.epa.gov/iaq Tools for Schools Program: http://www.epa.gov/iaq/schools/index.html Air Now (ground level ozone): http://www.epa.gov/airnow/ http://www.epa.gov/scipoly/oscpendo/
EPA Endocrine Disruptor Screening Program	The Endocrine Disruptor Screening Program focuses on providing methods and procedures to detect and characterize endocrine activity of pesticides, commercial chemicals, and environmental contaminants.	http://cfpub.epa.gov/ncer/abstracts/index.cfm/fuseaction/outlinks.centers
EPA Children's Environmental Health Research Initiative	Federal research programs devoted exclusively to children's environmental health and disease prevention	http://www.epa.gov/teach/
EPA Children's Environmental Health Resource, Toxicity and Exposure Assessment for Children's Health (TEACH)	Searchable database children's environmental health risk from chemical exposure	http://www.epa.gov/ceppo/ http://www.epa.gov/water/index.html Drinking Water Advisories http://www.epa.gov/waterscience/criteria/drinking/ Fish Consumption Advisories http://www.epa.gov/ost/fish/
EPA Office of Emergency Management	—	
EPA Office of Water	—	

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Table 2 (continued)

Name	Description	Location and Contact
EPA Office of Pollution Prevention & Toxics	Administers the Toxic Substances Control Act (TSCA) and the Pollution Prevention Act of 1990. Manages the Chemical Right-to-Know Initiative and the New and Existing Chemicals programs; the Design for the Environment (DFE), Green Chemistry, and Environmentally Preferable Products (EPP) programs; and the Lead, Asbestos, and Polychlorinated Biphenyls (PCBs) programs.	http://www.epa.gov/opptintr/index.html
EPA Healthy Schools Program	Provides access to the many programs and resources available to help prevent and resolve environmental issues in schools.	http://www.epa.gov/schools/
EPA Toxics Release Inventory	Contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities.	http://www.epa.gov/tri/
EPA—America's Children & the Environment	Quantitative information from a variety of sources showing trends in levels of environmental contaminants in air, water, food, and soil; concentrations of contaminants measured in the bodies of mothers and children; and childhood diseases that may be influenced by environmental factors	http://www.epa.gov/envirohealth/children/
National Library of Medicine Environmental Health & Toxicology	Includes: TOXNET Hazardous Substances Data Bank (HSDB): broad scope in human and animal toxicity, safety and handling, environmental fate, and more. Scientifically peer-reviewed.	http://sis.nlm.nih.gov/enviro.html

Integrated Risk Information System (IRIS): data from the EPA in support of human health risk assessment, focusing on hazard identification and dose-response assessment

Chemical Carcinogenesis Research Information System (CCRIS): carcinogenicity, mutagenicity, tumor promotion, and tumor inhibition data provided by the National Cancer Institute

GENE-TOX: peer-reviewed mutagenicity test data from the EPA

TOXLINE: references to literature on biochemical, pharmacologic, physiologic, and toxicologic effects of drugs and other chemicals

Environmental Mutagen Information Center (EMIC): current and older literature on agents tested for genotoxic activity

Developmental and Reproductive Toxicology and Environmental Teratology Information Center (DART/ETIC): current and older literature on developmental and reproductive toxicology

Toxics Release Inventory (TRI)

ToxSeek

Enviro-Health Links

Tox Town

Household Products Database: information on household products in lay language

LactMed: information about drugs and lactation
Formulates environmental health policy evaluations for the American Academy of Pediatrics.

American Academy of Pediatrics, Committee on
Environmental Health

www.aap.org/visit/cmte16.htm

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Table 2 (continued)

Name	Description	Location and Contact
Children's Environmental Health Network	National multidisciplinary network to promote a healthy environment and protect the fetus and the child from environmental hazards through a focus on three areas: education of health professionals, research, and federal policy	110 Maryland Avenue NE, Suite 511, Washington, DC 20002 Telephone: (202) 543-4033; Fax: (202) 543-8797; e-mail: cehn@cehn.org http://www.cehn.org ;
Children's Health Environmental Coalition	Provides information to parents about the preventable childhood health and developmental problems caused by exposure to toxic substances found in homes, schools and communities.	12300 Wilshire Boulevard, Suite 410, Los Angeles, CA 90025 Telephone: (310) 820-2030; Fax: (310) 820-2070 http://www.checnet.org http://www.checnet.org/healthhouse/virtualhouse/index.asp , http://scorecard.org
Scorecard	Using authoritative scientific and government data, Scorecard provides information about local environmental information. Ranks and compares the pollution levels in areas across the United States. Also profiles 6800 chemicals, making it easy to find out where they are used and how hazardous they are.	http://www.who.int/peh/ For child specific information, see: http://www.who.int/peh/ceh/ For water specific information, see: http://www.who.int/water_sanitation_health/ For chemical specific information, see: http://www.who.int/pcs/ For information about ionizing radiation, see: http://www.who.int/ionizing_radiation/en/ For information about the air, see: http://www.who.int/peh/air/airindex.htm
World Health Organization – Protecting the Human Environment	—	

For information about ultraviolet radiation, see:

<http://www.who.int/peh-uv/>

For information about electro-magnetic fields,

see: <http://www.who.int/peh-emf/en/>

For information about occupational health, see:

<http://www.who.int/oeht/index.html>

For information about climate, see:

[http://www.who.int/peh/climate/
climate_and_health.htm](http://www.who.int/peh/climate/climate_and_health.htm)

For information about noise, see:

<http://www.who.int/peh/noise/noiseindex.html>

For information about solid waste, see:

[http://www.who.int/water_sanitation_health/
Environmental_sanit/health_care_waste.htm](http://www.who.int/water_sanitation_health/Environmental_sanit/health_care_waste.htm)

For information about food safety, see

<http://www.who.int/fsf/>

For information about environmental burden of

disease, see: [http://www.who.int/peh/burden/
burdenindex.htm](http://www.who.int/peh/burden/burdenindex.htm)

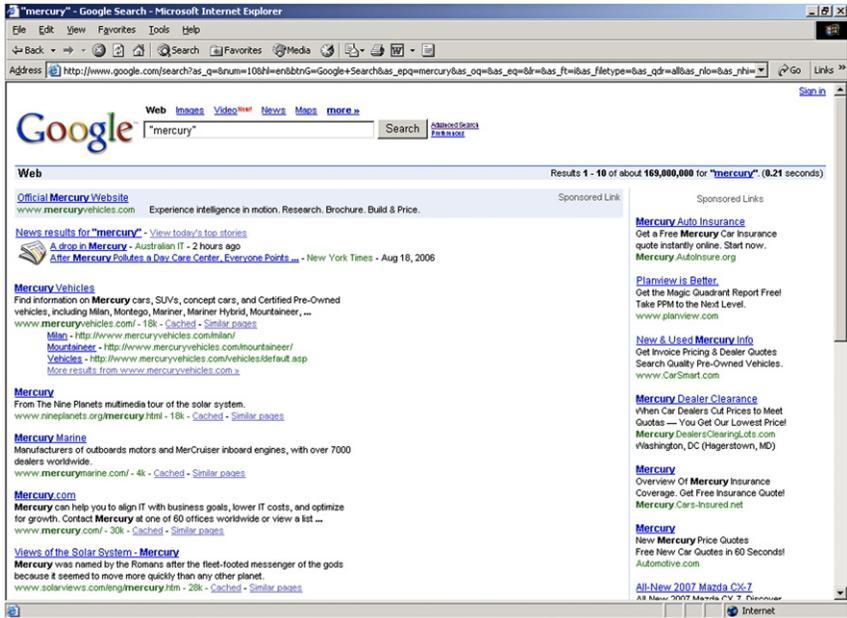


Fig. 2. Screen shot of “mercury” search on Google.com. (Google.com screenshot © Google Inc., reprinted with permission.)

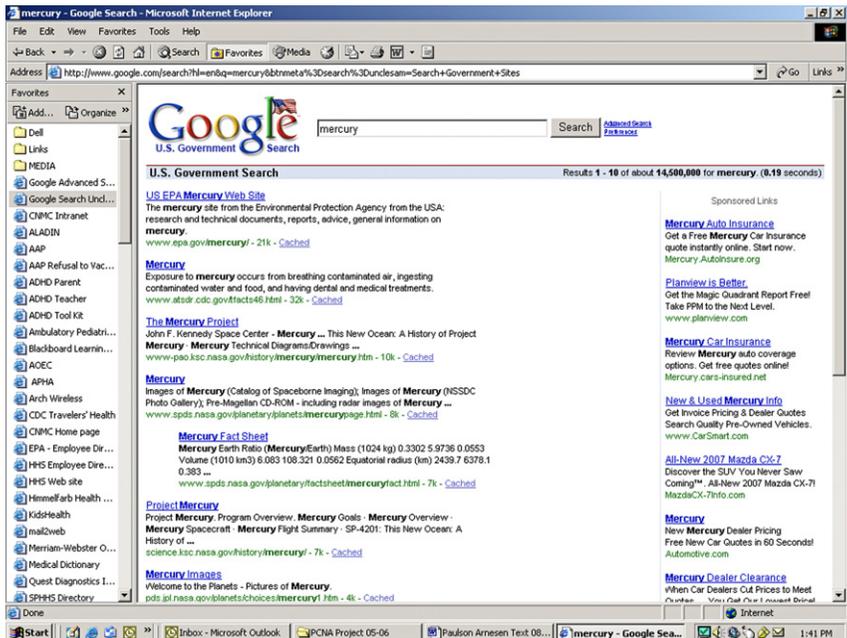


Fig. 3. Screen shot of mercury search on Google.com/ig/usgov. (Google.com screenshot © Google Inc., reprinted with permission.)

There also are important and relevant web pages that one will miss using Google US Government. Any website belonging to an NGO or an international organization such as the World Health Organization will not be retrieved. For example, on the third page of results of a search of the key word “mercury” in the regular Google, one finds the Mercury Policy Project website (www.mercurypolicy.org). The Mercury Policy Project is an NGO that works to promote policies to eliminate mercury uses, reduce the export and trafficking of mercury, and significantly reduce mercury exposures at the local, national, and international levels.

Summary

The World Wide Web contains numerous resources on the effect of the environment on the health of children. The challenge is to identify reliable and up-to-date resources to assist with and enhance research and patient care. The websites listed in this article can serve as initial points of contact to begin researching a new topic (Table 2). From the websites focused on children’s health (such as the Children’s Environmental Health Network) and from general environmental health databases (such as TOXNET), information on many environmental health issues affecting children can be found. If more information is needed, Internet search engines can identify quickly additional sources of information. By following a few key guidelines for evaluating these resources, new sources of timely, reliable information can be identified.

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Sources of Information on Children's Health and the Environment

Name	Description	Location and Contact
Federal agencies		
Agency for Toxic Substances and Disease Registry (ATSDR)	ATSDR's highest priority is to protect America's health from toxic exposures.	Department of Health & Human Services, 1600 Clifton Road NE, Mail Stop E-28, Atlanta, GA 30333 http://www.atsdr.cdc.gov/ http://www.atsdr.cdc.gov/child/
ATSDR Child Health Initiative	Provides summaries of ATSDR child health programs, such as the Pediatric Environmental Health Specialty Units (PEHSUs), as well as links to toxicology profiles and Public Health Assessments.	http://www.atsdr.cdc.gov/
ATSDR Geographic Analysis Tool for Health and Environmental Research (GATHER)	GATHER is a spatial data-access tool that provides access to spatial data that is pertinent to the analysis and exploration of public health issues.	http://gis.cdc.gov/
ATSDR toxicologic profiles	Detailed information on individual hazardous chemicals. All profiles include a section on children	http://www.atsdr.cdc.gov/toxpro2.html
ATSDR regional offices	Detailed information about issues in each region of the country	http://www.atsdr.cdc.gov/oro_contact.html
Centers for Disease Control & Prevention (CDC)		
National Center for Environmental Health (NCEH)	Promotes health and quality of life by preventing or controlling those diseases or deaths that result from interactions between people and their environment.	4770 Buford Highway NE, Mail Stop F-28, Atlanta, GA 30341-3724 http://www.cdc.gov/nceh/ncehinfo@cdc.gov
NCEH Asthma Program	—	http://www.cdc.gov/asthma/default.htm
NCEH Lead Poisoning Prevention Program	—	http://www.cdc.gov/nceh/lead/
NCEH Human Exposure Report	Reports on the concentrations of chemicals measured in human bodies.	http://www.cdc.gov/exposurereport/

State Health Department Search (CDC)	Searches for materials produced by state health departments; good source of patient handout materials.	http://www.cdc.gov/states.htm
CDC Emergency Preparedness & Response	Information on bioterrorism, chemical emergencies, mass casualties, natural disasters and severe weather, radiation emergencies, and other related topics	www.bt.cdc.gov
CDC information on hoaxes & rumors National Institute for Occupational Safety and Health (NIOSH)	— Adolescent work-place safety issues; includes farm worker issues	http://www.cdc.gov/hoax_rumors.htm http://www.cdc.gov/niosh/homepage.html , eidtechinfo@cdc.gov
Consumer Product Safety Commission (CPSC)	Information about hazardous products and recalled products; not a source of information on chemicals or pesticides (see EPA or ATSDR)	4340 East West Highway, Bethesda, MD 20814 http://www.cpsc.gov
US Environmental Protection Agency (EPA)	— Adolescent work-place safety issues; includes farm worker issues	1200 Pennsylvania Avenue NW, Washington, DC, 20460
EPA Office of Children's Health Protection	The focus within EPA for all issues related to children's health	http://www.epa.gov http://www.epa.gov/children http://yosemite.epa.gov/ochp/ochpweb.nsf/homepage
EPA Office of Pesticide Programs	The EPA licenses or registers pesticides for use in strict accordance with label directions, based on review of scientific studies on the pesticide to determine that it will not pose unreasonable risks to human health or the environment. For pesticides used on food, the EPA sets limits on how much of a pesticide residue may remain in or on foods. The EPA also sets standards to protect workers who may be exposed to pesticides on the job.	http://www.epa.gov/pesticides

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Name	Description	Location and Contact
EPA Office of Air and Radiation	—	http://www.epa.gov/oar/ Indoor air web page: http://www.epa.gov/iaq Tools for Schools Program: http://www.epa.gov/iaq/schools/index.html Air Now – ground level ozone: http://www.epa.gov/airnow/ http://www.epa.gov/scipoly/oscpendo/
EPA Endocrine Disruptor Screening Program	Focuses on providing methods and procedures to detect and characterize endocrine activity of pesticides, commercial chemicals, and environmental contaminants.	http://cfpub.epa.gov/ncer/abstracts/index.cfm/fuseaction/outlinks.centers
EPA Children's Environmental Health Research Initiative	Federal research programs devoted exclusively to children's environmental health and disease prevention	http://cfpub.epa.gov/ncer/abstracts/index.cfm/fuseaction/outlinks.centers
EPA Children's Environmental Health Resource, Toxicity and Exposure Assessment for Children's Health (TEACH)	Searchable database of children's environmental health risks from chemical exposure	http://www.epa.gov/teach/
EPA Office of Emergency Management	—	http://www.epa.gov/ceppo/
EPA Office of Water	—	http://www.epa.gov/water/index.html Drinking water advisories: http://www.epa.gov/waterscience/criteria/drinking/ Fish consumption advisories: http://www.epa.gov/ost/fish/

EPA Office of Pollution Prevention & Toxics	Administers the Toxic Substances Control Act (TSCA) and the Pollution Prevention Act of 1990; manages the Chemical Right-to-Know Initiative and the New and Existing Chemicals programs, the Design for the Environment (DFE), Green Chemistry, and Environmentally Preferable Products (EPP) programs, and the Lead, Asbestos, and Polychlorinated Biphenyls (PCBs) programs.	http://www.epa.gov/opptintr/index.html
EPA Healthy Schools Program	Provides access to the many programs and resources available to help prevent and resolve environmental issues in schools.	http://www.epa.gov/schools/
EPA Toxics Release Inventory	Contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities.	http://www.epa.gov/tri/
EPA: America's Children & the Environment	Quantitative information from a variety of sources showing trends in levels of environmental contaminants in air, water, food, and soil; concentrations of contaminants measured in the bodies of mothers and children; and childhood diseases that may be influenced by environmental factors	http://www.epa.gov/envirohealth/children/

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Name	Description	Location and Contact
Center for Food Safety and Applied Nutrition (CFSAN)	Responsible for ensuring that the nation's food supply is safe, sanitary, wholesome, and honestly labeled.	Food and Drug Administration (FDA), 5100 Paint Branch Parkway, College Park, MD 20740-3835 http://www.cfsan.fda.gov http://www.FoodSafety.gov
Food Safety: Gateway to Government Food Safety Information	Provides information on a range of food safety issues including consumer advice for women and child care providers, links to news and safety alerts from the CDC, FDA and EPA, and resources for children, teenagers and educators.	http://www.FoodSafety.gov
Food Safety and Inspection Service	—	Food Safety Education Office, 1400 Independence Avenue SW, Washington, DC 20250 http://www.fsis.usda.gov
National Institute of Environmental Health Sciences (NIEHS)	Conducts basic research on environmental health and environment-related diseases; provides materials for children and curriculum materials and information on science initiatives for teachers.	US Department of Health and Human Services, P.O. Box 12233, Research Triangle Park, NC 27709 http://www.niehs.nih.gov
The Environmental Genome Project	The Environmental Genome Project is part of NIEHS.	http://www.niehs.nih.gov/envgenom/home.htm

NIEHS Children's Environmental Health
Research Initiative

Research program devoted exclusively to children's environmental health and disease prevention; a joint effort by the NIEHS and the EPA

<http://www.niehs.nih.gov/external/resinits/ri-28.htm> <http://www.niehs.nih.gov/dert/programs/translat/children/children.htm>

The National Toxicology Program (NTP)

Coordinates toxicologic testing programs within DHHS, strengthens the science base in toxicology, develops and validates improved testing methods, and provides information about potentially toxic chemicals to health regulatory and research agencies, the scientific and medical communities, and the public.

<http://ntp-server.niehs.nih.gov/>

Center for the Evaluation of Risks to Human
Reproduction

Provides scientifically based, uniform assessments of the potential for adverse effects on reproduction and development caused by agents to which humans may be exposed.

<http://cerhr.niehs.nih.gov>

National Cancer Institute (NCI)

The Surveillance, Epidemiology, and End Results (SEER) Program provides information on cancer incidence and survival in the United States.

US Department of Health and Human Services,
National Institutes of Health (NIH), 9000
Rockville Pike, Bethesda, MD 20892
<http://www.nci.nih.gov>

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Name	Description	Location and Contact
National Library of Medicine Environmental Health & Toxicology	<p>Includes: TOXNET Hazardous Substances Data Bank (HSDB): broad scope in human and animal toxicity, safety and handling, environmental fate, and more; scientifically peer-reviewed Integrated Risk Information System (IRIS): data from the EPA in support of human health risk assessment, focusing on hazard identification and dose-response assessment Chemical Carcinogenesis Research Information System (CCRIS): carcinogenicity, mutagenicity, tumor promotion, and tumor inhibition data provided by the National Cancer Institute GENE-TOX: peer-reviewed mutagenicity test data from the EPA TOXLINE: references to literature on biochemical, pharmacologic, physiologic, and toxicologic effects of drugs and other chemicals Environmental Mutagen Information Center (EMIC): current and older literature on agents tested for genotoxic activity Developmental and Reproductive Toxicology and Environmental Teratology Information Center (DART/ETIC): current and older literature on developmental and reproductive toxicology</p>	<p>http://sis.nlm.nih.gov/enviro.html</p>

Household Products Database	<p>Toxics Release Inventory (TRI) ToxSeek Enviro-Health Links Tox Town</p> <p>Provides information in consumer-friendly language on household products that contain substances that can pose health risks.</p>	http://householdproducts.nlm.nih.gov/
Office of Healthy Homes and Lead Hazard Control	—	<p>US Department of Housing & Urban Development, 451 7th Street SW, Washington, DC 20410</p> <p>http://www.hud.gov/offices/lead/</p>
Department of Labor, Occupational Safety and Health Administration	<p>Site for teen-worker safety and health information provided by the Occupational Safety and Health Administration (OSHA); information for teens, parents, employers, and educators</p>	<p>200 Constitution Avenue NW, Washington, DC 20210</p> <p>http://www.osha.gov/SLTC/teenworkers/index.html</p>
National Children's Study (NCL) Longitudinal Cohort Study of Environmental Effects on Child Health and Development	<p>Proposed research study of the environmental effects on child health and development.</p>	http://www.nationalchildrensstudy.gov/
Nongovernmental organizations Alliance for Healthy Homes	<p>Seeks to protect children from lead and other environmental health hazards in and around their homes by advocating for policy solutions and building capacity for primary prevention in communities throughout the United States.</p>	<p>227 Massachusetts Avenue NE, Suite 200, Washington, DC 20002</p> <p>http://www.afhh.org/</p>

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Name	Description	Location and Contact
Ambulatory Pediatric Association	Sponsors environmental health fellowship for pediatricians.	6728 Old McLean Village Drive, McLean, VA 22101 http://www.ambpeds.org/
American Academy of Pediatrics Committee on Environmental Health	Formulates environmental health policy evaluations for the American Academy of Pediatrics.	www.aap.org/visit/cmte16.htm
American Academy of Pediatrics: Children, Bioterrorism & Disasters	—	http://www.aap.org/terrorism/index.html
American Association of Poison Control Centers	—	3201 New Mexico Avenue NW, Suite 310, Washington, DC 20016 http://www.aapcc.org
American Cancer Society	Nationwide, community-based voluntary health organization with information about cancer and risk factors	1599 Clifton Road NE, Atlanta, GA 30329 http://www.cancer.org
American Lung Association	Information for patients and providers about asthma, other lung diseases, indoor and outdoor air pollution, environmental tobacco smoke, and other issues	432 Park Avenue S, 8th Floor, New York, NY 10016 http://www.lungusa.org
American Public Health Association	Promotes the scientific and professional foundation of public health practice and policy, advocates the conditions for a healthy global society, emphasizes prevention, and enhances the ability of members to promote and protect environmental and community health	800 I Street NW, Washington, DC 20001 www.apha.org
Association of Occupational and Environmental Clinics (AOEC)	Committed to improving the practice of occupational and environmental health through information sharing and collaborative research; coordinates the	http://www.aoec.org , http://www.aoec.org/PEHSU.htm

Association of State and Territorial Health Officials (ASTHO)	Pediatric Environmental Health Unit (PEHSU) network. Represents the state and territorial public health agencies of the United States, the US territories, and the District of Columbia.	http://www.astho.org/?template=environment.html
Asthma and Allergy Foundation of America	Information for patients and providers about asthma and allergies	1125 15th St. NW, Suite 502, Washington, DC 20005 http://www.aafa.org
Beyond Pesticides	A national network committed to pesticide safety and the adoption of alternative pest-management strategies that reduce or eliminate a dependency on toxic chemicals	701 E. Street SE, #200, Washington, DC 20003 http://www.beyondpesticides.org/ , info@beyondpesticides.org
California Electric and Magnetic Fields (EMF) Program	—	1515 Clay Street, Suite 1700, Oakland, CA 94612 http://www.dhs.ca.gov/ehib/emf/
Center for Health, Environment and Justice (CHEJ)	Focus on environmental justice, through community organizing and empowerment	P.O. Box 6806, Falls Church, VA 22040 http://www.chej.org/
Child Proofing Our Communities Campaign	Concerned about school siting, use of chemicals in schools	http://www.childproofing.org/ childproofing@chej.org
Children's Environmental Health Network	National multidisciplinary network to promote a healthy environment and protect the fetus and the child from environmental hazards through a focus on three areas: education of health professionals, research, and federal policy	110 Maryland Avenue NE, Suite 511, Washington, DC 20002 http://www.cehn.org
Children's Health Environmental Coalition	Provides information to parents about the preventable childhood health and developmental problems caused by exposure to toxic substances found in homes, schools and communities.	12300 Wilshire Boulevard, Suite 410, Los Angeles, CA 90025 http://www.chechnet.org , http://www.chechnet.org/healthhouse/virtualhouse/index.asp

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Name	Description	Location and Contact
Children's Environmental Health Initiative	Academic research centers funded by NIEHS and EPA	http://www.niehs.nih.gov/external/resinits/ri-28.htm#full
The Center for Child Environmental Health Risks Research	Children's susceptibility to pesticides	Department of Environmental and Occupational Health Sciences in the School of Public Health and Community Medicine at the University of Washington http://depts.washington.edu/chc/index.html
Center for Children's Environmental Health	A center for children's environmental health and disease prevention research; its research mission is to prevent environmentally related disease in children, including asthma, cancer, and developmental disorders	Columbia University Mailman School of Public Health http://cpmcnet.columbia.edu/dept/sph/ccceh
The Center for Childhood Neurotoxicology and Exposure Assessment	The goal of the Center is to determine the influences of environmental exposure to neurotoxicants on child neurologic health and development with special emphasis on autism and related disabilities.	Rutgers University http://eohsi.rutgers.edu/childhood/index.shtml
The Center for the Health Assessment of Mothers and Children of Salinas	Studies focus on pesticide and allergen exposures to pregnant women and children.	The University of California–Berkeley http://ehs.sph.berkeley.edu/chamacos/index.html
Community Environmental Health Resource Center (CEHRC)	A resource for grassroots groups working for social justice in low-income communities around the country; helps community-based organizations develop capacity to document environmental health hazards in substandard housing and to pursue effective organizing and advocacy strategies for corrective and preventive action.	227 Massachusetts Avenue NE, Suite 200, Washington, DC 20002 http://www.cehrc.org/

Doctor Fungus	A resource dedicated to timely dissemination of information about fungal infections via the World Wide Web	http://www.doctorfungus.org/index.htm
EMR Network	To enhance local, regional, national and international efforts to reduce, mitigate, and where possible, eliminate hazardous exposure to electromagnetic radiation (EMR)	P.O. Box 393, Concord, MA 01742 http://www.emrnetwork.org/index.htm
Environmental Defense	National nonprofit advocacy organization	257 Park Avenue S, New York, NY 10010 http://www.environmentaldefense.org http://scorecard.org
Scorecard	Using authoritative scientific and government data, Scorecard provides information about local environmental information; ranks and compares the pollution levels in areas across the United States; also profiles 6800 chemicals, making it easy to find out where they are used and how hazardous they are.	
Environmental Justice Resource Center	A research, policy, and information clearinghouse on issues related to environmental justice, race and the environment, civil rights, facility siting, land use planning, brownfields, transportation equity, suburban sprawl, and Smart Growth. The center assists, supports, trains, and educates people of color students, professionals, and grassroots community leaders.	223 James P. Brawley Drive SW, Atlanta, GA 30314 http://www.ejrc.cau.edu

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Name	Description	Location and Contact
Environmental Working Group	A not-for-profit environmental research organization dedicated to improving public health and protecting the environment by reducing pollution in air, water and food	1718 Connecticut Avenue NW, Suite 600, Washington, DC 20009 http://www.ewg.org/
Foodnews	Several food/pesticide-related databases combined by the Environmental Working Group	http://www.foodnews.org/
EXTOXNET InfoBase	A source of objective, science-based information about pesticides written for the nonexpert	http://ace.ace.orst.edu/info/extoxnet/
Farm*A*Syst	Farm*A*Syst is a partnership between government agencies and private business that enables individuals to prevent pollution on farms, ranches, and in homes using confidential environmental assessments. Although this site is maintained by the University of Wisconsin, it has links to all related programs throughout the United States and Canada.	303 Hiram Smith Hall, 1545 Observatory Drive, Madison, WI 53706-1289 http://www.uwex.edu/farmasyst/
Generations at Risk	Impact of chemicals on reproductive health	Greater Boston Physicians for Social Responsibility, 11 Garden Street, Cambridge, MA 02138 http://psr.igc.org/gar-project.htm
Health Care Without Harm	To transform the health care industry worldwide, without compromising patient safety or care, so that it is ecologically sustainable and no longer a source of harm to public health and the environment	1755 S Street NW, Suite 6B, Washington, DC 20009 http://www.noharm.org/
Healthy Schools Network, Inc.		96 S. Swan Street, Albany, NY 12210 http://www.healthyschools.org/

Home*A*Syst Program	<p>Nonprofit organization serving as a national information and referral clearinghouse for school environmental health issues</p> <p>Home*A*Syst helps individuals identify potential environmental risks and take action. Although this site is maintained by the University of Wisconsin, it has links to all related programs throughout the United States and Canada.</p>	<p>303 Hiram Smith Hall, 1545 Observatory Drive, Madison, WI 53706</p> <p>http://www.uwex.edu/homeasyst/</p>
In Harm's Way	<p>Impact of environmental hazards on development, learning</p>	<p>Greater Boston Physicians for Social Responsibility, 11 Garden Street, Cambridge, MA 02138</p> <p>http://psr.igc.org/ihw-project.htm</p> <p>2105 1st Avenue South, Minneapolis, MN 55404</p> <p>http://www.iatp.org/</p>
Institute for Agriculture and Trade Policy	<p>Works to create environmentally and economically sustainable communities and regions through sound agriculture and trade policy; includes information on antibiotic use in animals</p>	<p>PO Box 757, Langley, VA 98260</p> <p>www.iceh.org</p> <p>http://www.partnersforchildren.org/</p> <p>4156 Library Road, Pittsburgh, PA 15234-1349</p> <p>http://www.ldanatl.org</p>
Institute for Children's Environmental Health	<p>An educational organization</p>	<p>1275 Mamaroneck Ave, White Plains, NY 10605</p> <p>http://www.modimes.org</p> <p>http://www.mercuryinschools.uwex.edu/project/index.htm</p>
Learning Disabilities Association of America (LDAA)	<p>LDAA is concerned about the link between environmental toxicants and learning disabilities.</p>	<p>—</p>
March of Dimes Birth Defects Foundation	<p>—</p> <p>Extensive information about mercury in schools and homes</p>	<p>—</p>

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Name	Description	Location and Contact
Mothers of Asthmatics, Inc.	—	2751 Prosperity Avenue, Suite 150, Fairfax, VA 22031 http://www.aanma.org
National Association of City and County Health Officials (NACCHO)	A nonprofit membership organization serving local health departments; has a children's environmental health initiative and related links.	1100 17th Street, Second Floor, Washington, DC 20036 http://www.naccho.org/
National Center for Healthy Housing,	To develop and promote practical methods to protect children from residential environmental hazards while preserving the supply of affordable housing	10227 Wincopin Circle, Suite 205, Columbia, MD 21044 http://www.centerforhealthyhousing.org/
National Environmental Education and Training Foundation	Develops and supports environmental learning programs to meet social goals, such as improved health, better education, and "greener," more profitable business	1707 H Street NW, Suite 900, Washington, DC 20006-3915 http://www.neetf.org/
National Lead Information Center	Provides the general public and professionals with information about lead hazards and their prevention	801 Roeder Road, Suite 600, Silver Spring, MD 20910 http://www.epa.gov/lead/
National Pesticide Information Center (NPIC)	Reliable information about pesticides	http://npic.orst.edu/
National Pesticide Medical Monitoring Program	Provides and collects information about clinical toxicology of pesticides; provides quantitative laboratory measurements of pesticides in environmental or biological samples.	http://oregonstate.edu/npmp/
National Safety Council, Safety & Health Policy Center	Conducts a variety of outreach and educational activities on children's environmental health issues, including asthma, secondhand smoke exposure, lead	http://www.nsc.org/ehc.htm

National Safety Council (NSC), Environmental Health Center, Indoor Air	poisoning, sun safety, and environmental safety. IAQ Community Leader Kit for Women and Children; education about indoor air quality (IAQ)	http://www.nsc.org/ehc/indoor/wctoc.htm
Natural Resources Defense Council	Uses law, science, and the support of more than 500,000 members nationwide to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things	40 West 20th Street, New York, NY 10011 http://www.nrdc.org
Pediatric Environmental Health Specialty Units (PEHSUs)	Services include health education and telephone and clinical consultations for children who have environmentally related illnesses; sponsored by the ATSDR, EPA, and AOEC.	http://www.aoec.org/PEHSU.htm , includes links to all PEHSUs
Pediatric Environmental Health Center at Children's Hospital Occupational & Environmental Health Center at Cambridge Hospital	Serves US Region 1 (ME, NH, VT, MA, RI, CT).	www.childrenshospital.org/pehc
Pediatric Environmental Health Specialty Unit	Serves US Region 2 (NY, NJ, PR, VI).	Mount Sinai School of Medicine http://www.mssm.edu/cpm/peds_environs.shtml http://www.health-e-kids.org
Mid-Atlantic Center for Children's Health & the Environment (MACCHE)	Serves US Region 3 (PA, DE, MD, WV, VA and the District of Columbia).	http://www.sph.emory.edu/PEHSU/
The Southeast Pediatric Environmental Health Specialty Unit	Serves US Region 4 (KY, TN, MS, AL, GA, FL, NC, SC).	http://www.uic.edu/sph/glakes/kids
Great Lakes Center for Children's Environmental Health	Serves US Region 5 (MN, WI, IL, IN, OH, MI).	http://www.swcpeh.org/
Southwest Center for Pediatric Environmental Health	Serves US Region 6 (NM, TX, OK, AR, LA).	

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Name	Description	Location and Contact
MidAmerica Pediatric Environmental Health Specialty Unit	Serves US Region 7 (NE, KS, MO, IA).	http://www2.kumc.edu/mapehsu/
Rocky Mountain Regional Pediatric Environmental Health Specialty Unit	Serves US Region 8 (CO, UT, MT, WY, ND, SD).	www.rmrpehsu.org
Pediatric Environmental Health Specialty Unit	Serves US Region 9 (CA, AZ, NV, HI).	University of California–San Francisco and University of California–Irvine www.ucsf.edu/ucpehsu
Northwest Pediatric Environmental Health Specialty Unit	Serves US Region 10 (OR, AK, WA, ID).	Mail Stop 359739, Seattle, WA 98104-2499 www.depts.washington.edu/pehsu
Pediatric Environmental Health Clinic	Serves Canada.	Misericordia Child Health Centre, Edmonton, Alberta, Canada
Unidad Pediatrica Ambiental–Mexico Pediatric Environmental Health Specialty Unit (UPA-PEHSU)	All of Mexico	Cuernavaca, Morelos, Mexico http://www.upa-pehsu.org/
Pediatric Environmental Health Toolkit	Materials for use in a pediatric or family medicine practice	http://psr.igc.org/ped-toolkit-project.htm
Organization of Teratology Information Services	Teratology Information Services (TIS) are comprehensive and multidisciplinary resources for medical consultation on prenatal exposures. TIS interprets information regarding known and potential reproductive risks into risk assessments that are communicated to individuals of reproductive age and health care providers.	http://www.otispregnancy.org/

Our Stolen Future	An advocacy website providing information about endocrine disrupting chemicals	http://www.ourstolenfuture.org/index.htm
Physicians for Social Responsibility	A nonprofit organization representing more than 20,000 physicians, nurses, and health care professionals devoted to nuclear disarmament, violence prevention, and environmental health	1875 Connecticut Avenue NW, Suite 1012, Washington, DC 20009 http://www.psr.org/home.cfm?id=environment
School Integrated Pest Management	Use of integrated pest-management techniques to limit pesticide use in schools	http://schoolipm.ifas.ufl.edu/
Teratology Society	—	1767 Business Center Drive, Suite 302, Reston, VA 20190-5332 http://www.teratology.org
Tulane/Xavier Center for Bioenvironmental Research	Information about endocrine disrupting chemicals	1430 Tulane Avenue, SL-3, New Orleans, LA 70112 http://www.cbr.tulane.edu/
University of Minnesota Environmental Health & Safety Program	—	266 McNeal Hall, 1985 Buford Avenue, St. Paul, MN 55108-6136 http://www.dehs.umn.edu/

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Table (continued)

Name	Description	Location and Contact
International organizations and agencies World Health Organization–Protecting the Human Environment	—	<p data-bbox="1058 296 1302 319">http://www.who.int/peh/</p> <p data-bbox="1058 322 1397 345">For child specific information, see:</p> <p data-bbox="1058 348 1362 371">http://www.who.int/peh/ceh/</p> <p data-bbox="1058 375 1397 398">For water specific information, see:</p> <p data-bbox="1058 401 1506 424">http://www.who.int/water_sanitation_health/</p> <p data-bbox="1058 428 1432 451">For chemical specific information, see:</p> <p data-bbox="1058 454 1319 477">http://www.who.int/pcs/</p> <p data-bbox="1058 481 1501 503">For information about ionizing radiation, see:</p> <p data-bbox="1058 507 1484 530">http://www.who.int/ionizing_radiation/en/</p> <p data-bbox="1058 533 1397 556">For information about the air, see:</p> <p data-bbox="1058 560 1472 583">http://www.who.int/peh/air/airindex.htm</p> <p data-bbox="1058 586 1525 609">For information about ultraviolet radiation, see:</p> <p data-bbox="1058 613 1350 635">http://www.who.int/peh-uv/</p> <p data-bbox="1058 639 1501 662">For information about electro-magnetic fields,</p> <p data-bbox="1058 665 1432 688">see: http://www.who.int/peh-emf/en/</p> <p data-bbox="1058 692 1525 715">For information about occupational health, see:</p> <p data-bbox="1058 718 1420 741">http://www.who.int/oeh/index.html</p> <p data-bbox="1058 745 1397 768">For information about climate, see:</p> <p data-bbox="1058 771 1397 817">http://www.who.int/peh/climate/climate_and_health.htm</p> <p data-bbox="1058 820 1397 843">For information about noise, see:</p> <p data-bbox="1058 847 1525 870">http://www.who.int/peh/noise/noiseindex.html</p> <p data-bbox="1058 873 1440 896">For information about solid waste, see:</p> <p data-bbox="1058 900 1506 945">http://www.who.int/water_sanitation_health/Environmental_sanit/health_care_waste.htm</p> <p data-bbox="1058 949 1432 972">For information about food safety, see</p> <p data-bbox="1058 975 1310 998">http://www.who.int/fsf/</p>

International Network for Children's Health Environment and Safety (INCHES)	A global network of people and organizations interested in promoting the protection of children from environmental and safety hazards	For information about environmental burden of disease, see: http://www.who.int/peh/burden/burdenindex.htm http://www.inchesnetwork.org/index.html
Commission for Environmental Cooperation (CEC)	An international organization created by Canada, Mexico, and the United States under the North American Agreement on Environmental Cooperation to address regional environmental concerns, help prevent potential trade and environmental conflicts, and to promote the effective enforcement of environmental law; it has a project on Children's Health and the Environment.	393, rue St-Jacques Ouest, Bureau 200, Montréal, Québec H2Y 1N9, Canada English Telephone: (514) 350-4300; Fax: (514) 350-4314; e-mail: info@ccemtl.org http://www.cec.org/programs_projects/pollutants_health/342/index.cfm?varlan
Canadian Institute for Child Health	Information specifically about children's environmental health issues in Canada	Suite 300, 384 Bank Street, Ottawa, Ontario K2P 1Y4, Canada Telephone: (613) 230-8838; Fax: (613) 230-6654, E-mail: cich@cich.ca http://www.cich.ca/Environment.htm
Canadian Association of Physicians for the Environment	Provides physicians with access to information about the effects of the environment on children's health. Links to specific Canadian resources.	208-145 Spruce Street, Ottawa, Ontario K1R 6P1, Canada Telephone: (613) 235-2273; Fax: (613)-33-9028; E-mail: info@cape.ca , http://www.cape.ca/children.html http://www.unicef.org/programme/wes/
UNICEF: Water, Environment & Sanitation	—	