



WISER and Other Resources from the National Library of Medicine

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Specialized Information Services
National Library of Medicine

NIEHS Workshop on Local, State, and Federal Partnerships for Chemical
Preparedness and Response
April 30, 2009



National Library of Medicine

NATIONAL INSTITUTES OF HEALTH U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Goals

- Introduction to NLM resources of likely interest to this audience
- Announcement of NLM's efforts with others on CHEMM
- Set the stage for follow-up interactions, including:
 - a) seeking feedback and other help from you, and
 - b) possible training in-person or via the Web



U.S. National Library of Medicine (NLM)

NLM's Mission: Collect, organize, and disseminate health-related information.

- World's largest biomedical library
 - Millions of items in collection
- Services: PubMed, MedlinePlus and many others
 - Several hundred million searches of PubMed each year
 - Articles from over 5,000 journals indexed monthly
- Research and Development
 - Biomedical informatics and communications
- New focus (within Specialized Information Services): Disaster information



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- Health Information
- Library Catalog & Services
- History of Medicine
- Online Exhibitions & Digital Projects

- Human Genome Resources
- Biomedical Research & Informatics
- Environmental Health & Toxicology
- Health Services Research & Public Health
- Health Information Technology

- About the National Library of Medicine
- Grants & Funding
- Training & Outreach
- Network of Medical Libraries



NLM and the Recovery Act

On Exhibit at NLM



Against the Odds:
Making a Difference in
Global Health

Director's Comments



Listen to what's new in
consumer health on
MedlinePlus

Especially for:

- The Public
- Health Professionals
- Researchers
- Librarians
- Publishers

Current Health News

- [About 1 in 5 Americans Say They Are Disabled](#) (05/01/09)
- [Drink a Little Wine, Live a Little Longer](#) (05/01/09)
- [Swine Flu Infections Surpass 100 in U.S.](#) (05/01/09)
- [More Health News](#)

NLM News and Press Releases

- [NLM co-sponsoring Public Laboratory LQINC Workshop & Committee Meeting June 15-16, 2009](#) (05/01/09)
- [National Library of Medicine Launches New Web Pages on 2009 H1N1 Flu](#) (04/28/09)
- [New Look, Advanced Features for NLM's Images from the History of Medicine \(IHM\)](#) (04/23/09)
- [NLM Classification Updated, April 23, 2009](#) (04/23/09)
- [Owners of LQINC, NPI, and SNOMED CT Begin Trial of Cooperative Terminology Development](#) (04/06/09)
- [More NLM News](#)

2009 Flu Info

U.S. Info •
Things You Can Do •
Plan & Prepare •
International Info •

[HHS.gov](#) [CDC.gov](#)
[Get the latest news on the Web site](#)

[Related Links: view a list of links for more information about 2009 H1N1 Flu](#)

Search NLM Web Site

Go

List of NLM >>>
Databases and Resources



PubMed®
Biomedical journal
literature from
MEDLINE/PubMed



MedlinePlus®
Health and drug
information for
patients, family and
friends



*Images from the
History of Medicine*
View prints,
photographs, posters
and other images



DailyMed
High quality
information about
marketed drugs



ClinicalTrials.gov
Drug and Treatment
Studies

Most "popular" NLM resources: Medline/PubMed and MedlinePlus



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We try to stay on top of information needs, e.g.,
<http://sis.nlm.nih.gov/enviro/swineflu.html>

The screenshot shows the National Library of Medicine website. At the top left is the NLM logo with the text "United States National Library of Medicine National Institutes of Health". At the top right is a search bar with a "Go" button and links for "NLN Home | Contact NLM | Site Map | FAQs". Below this is a green banner for "Environmental Health and Toxicology SIS Specialized Information Services" with a photo of a family. A navigation bar below the banner contains "SIS Home | About Us | Site Map & Search | Contact Us". The main content area has a breadcrumb trail: "SIS Home > Environmental Health and Toxicology > Enviro-Health Links". The title is "Enviro-Health Links - 2009 H1N1 (Swine) Flu". A list of links is provided: Federal Response, International Resources, Guidance for Professionals, Maps, News Feeds, Social Media, Information from the National Library of Medicine, Veterinary Resources, Fulltext Books, Información en Español, and Disclaimer. On the right, there is a "2009 Flu Info" widget with links for "U.S. Info", "Things You Can Do Plan & Prepare", and "International Info", along with "HHS.gov | CDC.gov" and "Get widget now! 2009 Flu information".



PubMed <http://pubmed.gov>

The screenshot shows the PubMed website interface. At the top left is the NCBI logo. The main header features the PubMed logo and the text "A service of the U.S. National Library of Medicine and the National Institutes of Health" with the URL "www.pubmed.gov". On the top right, there is a "My NCBI" section with "Sign In" and "Register" links. Below the header is a navigation bar with tabs for "All Databases", "PubMed", "Nucleotide", "Protein", "Genome", "Structure", "OMIM", "PMC", "Journals", and "Books". The search bar contains the text "PubMed" in a dropdown menu, "for Chemical preparedness response", and buttons for "Go" and "Clear". There are also links for "Advanced Search" and "Save Search". Below the search bar are buttons for "Limits", "Preview/Index", "History", "Clipboard", and "Details". The display settings section shows "Display Summary", "Show 20", "Pub Date", and "Send to". A summary bar indicates "All: 102" and "Review: 18". The results section shows "Items 1 - 20 of 102" and a pagination control for "Page 1 of 6 Next". Four search results are listed, each with a checkbox, a title, author, journal information, PMID, and a link to "Related Articles". On the right side, there is a section for "Free full-text articles in PubMed Central" with three entries. Below that is a "Recent Activity" section with a "Turn Off" and "Clear" button, listing recent searches and their counts.

NCBI
PubMed
www.pubmed.gov
A service of the U.S. National Library of Medicine and the National Institutes of Health

My NCBI
[Sign In] [Register]

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books

Search PubMed for Chemical preparedness response [Go] [Clear] [Advanced Search](#) [Save Search](#)

Limits Preview/Index History Clipboard Details

Display Summary Show 20 Pub Date Send to

All: 102 Review: 18

Items 1 - 20 of 102 Page 1 of 6 Next

1: [LEAD TOXICITY, VULNERABLE SUBPOPULATIONS AND EMERGENCY PREPAREDNESS.](#)
Healey N.
Radiat Prot Dosimetry. 2009 Apr 26. [Epub ahead of print]
PMID: 19398444 [PubMed - as supplied by publisher]
[Related Articles](#)

2: [Death by polonium-210: lessons learned from the murder of former Soviet spy Alexander Litvinenko.](#)
McFee RB, Leikin JB.
Semin Diagn Pathol. 2009 Feb;26(1):61-7.
PMID: 19292030 [PubMed - indexed for MEDLINE]
[Related Articles](#)

3: [Response of public health workers to various emergencies.](#)
DeSimone CL.
AAOHN J. 2009 Jan;57(1):17-23.
PMID: 19248746 [PubMed - indexed for MEDLINE]
[Related Articles](#)

4: [Chemical, biological and radiological incidents: preparedness and perceptions of emergency nurses.](#)
Considine J, Mitchell B.
Disasters. 2008 Oct 31. [Epub ahead of print]
PMID: 19178546 [PubMed - as supplied by publisher]
[Related Articles](#)

Free full-text articles in PubMed Central

- ▶ Chemical plants remain vulnerable to terrorists: a call to action. [Environ Health Perspect. 2006]
- ▶ Impact of the Department of Health initiative to equip and train acute trusts to manage ct [Emerg Med J. 2005]
- ▶ Chemical weapon functional exercise—Cincinnati: observations and lessons learned [Public Health Rep. 2003]

» See all (3)...

Recent Activity

Turn Off Clear

- 🔍 Chemical preparedness res... (102)
- 🔍 Hakinen Intuitive (0)
- 🔍 "Flvnn J"[Author] (210)
- 📄 Gender, race, and perception of environmental health risks
- 🔍 "Mertz CK"[Author] (13) PubMed



[My NCBI](#) – store searches; automatic updates

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MedlinePlus Consumer Health Information



A service of the U.S. NATIONAL LIBRARY OF MEDICINE and the NATIONAL INSTITUTES OF HEALTH

Search MedlinePlus

Home | Health Topics | Drugs & Supplements | Encyclopedia | Dictionary | News | Directories | Other Resources | **español**

Other Health Topics: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [List All Topics](#)

H1N1 Flu (Swine Flu)

Also called: Swine flu

Swine flu is a type of virus. It's named for a virus that pigs can get. People do not normally get swine flu, but human infections can and do happen. The virus is contagious and can spread from human to human. Symptoms of swine flu in people are similar to the symptoms of regular human [flu](#) and include fever, cough, sore throat, body aches, headache, chills and fatigue.

There are antiviral medicines you can take to prevent or treat swine flu. There is no vaccine available right now to protect against swine flu. You can help prevent the spread of germs that cause respiratory illnesses like influenza by

- Covering your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Washing your hands often with soap and water, especially after you cough or sneeze. You can also use alcohol-based hand cleaners.
- Avoiding touching your eyes, nose or mouth. Germs spread this way.
- Trying to avoid close contact with sick people.
- Staying home from work or school if you are sick.

Centers for Disease Control and Prevention

Start Here

- **New!** [CDCemergency \(Twitter\)](#) (Centers for Disease Control and Prevention)
- **New!** [Swine Influenza Frequently Asked Questions](#) (World Health Organization) - Links to PDF

Also available in [Spanish](#)

Basics <ul style="list-style-type: none">• Overviews• Latest News• Diagnosis/Symptoms• Treatment	Learn More <ul style="list-style-type: none">• Disease Management• Specific Conditions• Related Issues	Multimedia & Cool Tools <ul style="list-style-type: none">• Videos
Research <ul style="list-style-type: none">• Clinical Trials• Journal Articles	Reference Shelf <ul style="list-style-type: none">• Organizations	For You <ul style="list-style-type: none">• Children

Overviews

- **New!** [Enviro-Health Links -- 2009 H1N1 \(Swine\) Flu](#) [NIH](#) (National Library of Medicine)
- **New!** [H1N1 Flu \(Swine Flu\)](#) (Centers for Disease Control and Prevention)
- **New!** [Key Facts about H1N1 Flu \(Swine Flu\)](#) (Centers for Disease Control and Prevention)



Printer-friendly version | E-mail to a friend

Related Topics

- [Animal Diseases and Your Health](#)
- [Bird Flu](#)
- [Flu](#)
- [Infections](#)
- [Lungs and Breathing](#)

Go Local

Services and providers for H1N1 Flu (Swine Flu) in the U.S.

Select Location

[Select from map](#)



<http://www.nlm.nih.gov/medlineplus/h1n1fluswineflu.html>

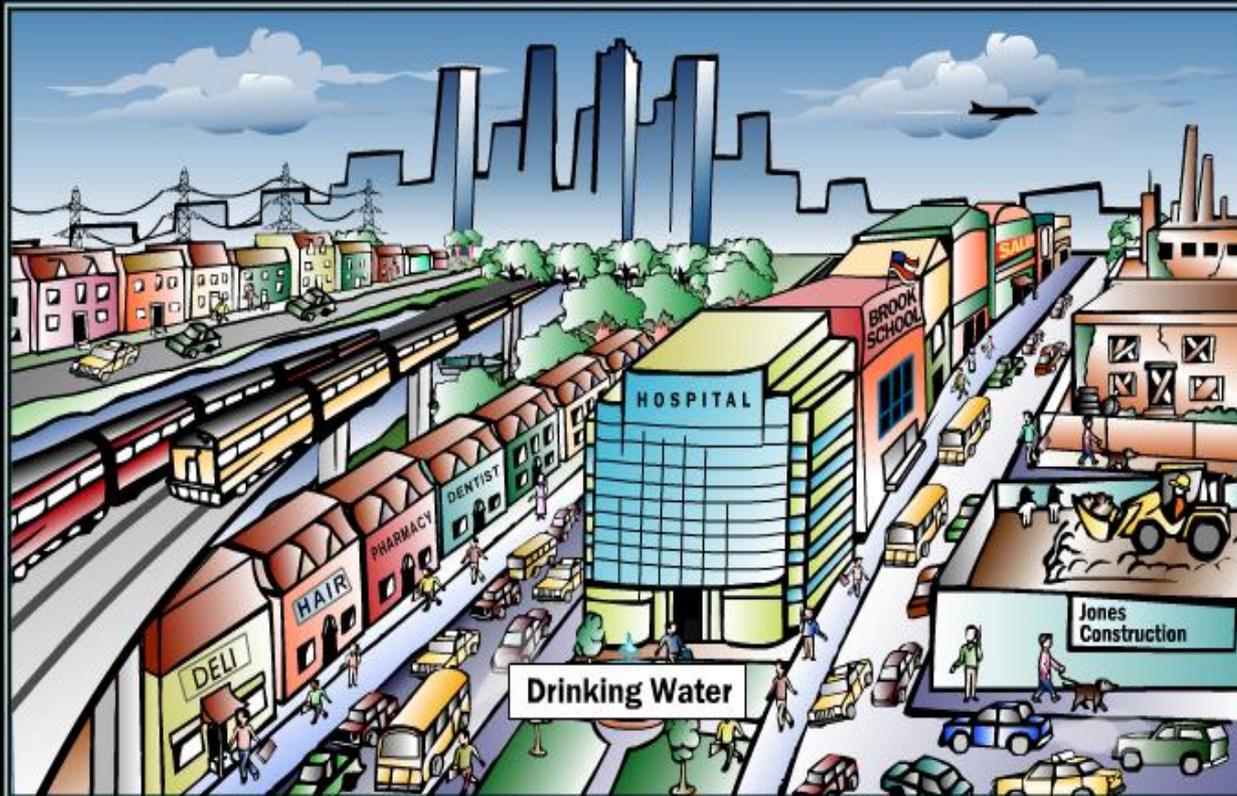
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Tox Town

<http://toxtown.nlm.nih.gov>

Home ((Sound ON)) City Map Help About Español Tox & Health Neighborhoods



Airplane Brownfield Construction Drinking Water EMFs Factory All Locations

Arsenic Asbestos Benzene Carbon Monoxide Chromium Lead All Chemicals

Drinking Water

- Why is drinking water a concern?
- Chemicals in Drinking Water
- Web links from MedlinePlus (National Library of Medicine)
 - Cryptosporidiosis
 - Drinking Water
 - Parasitic Diseases
- Radionuclides in Water (Environmental Protection Agency)
- Drinking Water Contaminant Candidate List and Regulatory Determinations (Environmental Protection Agency)
- National Water-Quality Assessment Program (U.S. Geological Survey)
- Public Drinking Water Systems Programs (Environmental Protection Agency)

Text Version

Topic last reviewed 12/7/06

Close Window

Toxicology Data Network (TOXNET)

- **Hazardous Substances Data Bank** – comprehensive toxicological information on over 5,000 substances (human and animal toxicity, safety and handling, environmental fate, and more). Scientifically peer-reviewed.
- **TOXLINE** - Extensive array of references to literature on biochemical, pharmacological, physiological, and toxicological effects of drugs and other chemicals.
- **TOXMAP** – GIS maps of annual estimated releases of toxic chemicals to the environment and location of Superfund sites .
- **ChemIDplus** - Numerous chemical synonyms, structures, regulatory list information, and links to other databases containing information about the chemicals.
- **Haz-Map** – occupational health database; links jobs and job tasks to symptoms and hazardous substances



TOXNET – Search for Sarin

<http://toxnet.nlm.nih.gov>



United States
National Library
of Medicine

TOXNET

Toxicology Data Network



[SIS Home](#) | [About Us](#) | [Site Map & Search](#) | [Contact Us](#)

▶ [Env. Health & Toxicology](#) ▶ [TOXNET](#)

TOXNET - Databases on toxicology, hazardous chemicals, environmental health, and toxic releases.

Select Database

- [ChemIDplus](#)
- [HSDB](#)
- [TOXLINE](#)
- [CCRIS](#)
- [DART](#)
- [GENETOX](#)
- [IRIS](#)
- [ITER](#)
- [LactMed](#)
- [Multi-Database](#)
- [TRI](#)
- [Haz-Map](#)
- [Household Products](#)
- [TOXMAP](#)

Search All Databases

(e.g. asthma air pollution, ibuprofen fever, vinyl chloride)

References from Biomedical Literature

TOXLINE	Toxicology Literature Online	1925
DART	Developmental Toxicology Literature	23

Chemical, Toxicological, and Environmental Health Data

ChemIDplus	Chemical Identification/Dictionary	1
HSDB	Hazardous Substances Data Bank	13
CCRIS	Chemical Carcinogenesis Information	1
GENETOX	Genetic Toxicology Data	0
IRIS	Integrated Risk Information	0
ITER	International Toxicity Estimates for Risk	0

Env. Health & Toxicology

Portal to
environmental

Hazardous Substances Data Bank's Sarin Human Toxicity Summary

Comprehensive peer-reviewed information on over 5,000 chemicals

Human toxicity

Emergency medical treatment

Safety and handling

Environmental fate

Contract all categories

Expand all categories

Select Clear

Contents

- [FULL RECORD](#)
- [Human Health Effects](#)
- [Emergency Medical Treatment](#)
- [Animal Toxicity Studies](#)
- [Metabolism/Pharmacokinetics](#)
- [Pharmacology](#)
- [Environmental Fate & Exposure](#)
- [Environmental Standards & Regulations](#)
- [Chemical/Physical Properties](#)
- [Chemical Safety & Handling](#)
- [Manufacturing/Use Information](#)
- [Laboratory Methods](#)
- [Special References](#)
- [Synonyms and Identifiers](#)
- [Administrative Information](#)

[U.S. National Library of Medicine](#),
8600 Rockville Pike, Bethesda, MD 20894,
[National Institutes of Health](#),
[Department of Health & Human Services](#)

SARIN

CASRN: 107-44-8

For other data, click on the Table of Contents

Human Health Effects:

Toxicity Summary:

Toxicology: Effects: Nerve Agents are the most toxic of the known chemical agents. Liquids or vapors from these agents are hazardous and can cause death within minutes after exposure. Nerve Agents disrupt the function of the nervous system by interfering with the enzyme acetylcholinesterase. The major effects will be on skeletal muscles, certain organs, and the central nervous system. These compounds are similar to, but much more deadly than, agricultural organophosphate pesticides. Pathways: "G" series Nerve Agents are hazardous through inhalation, skin and eye exposure, ingestion, and abraded skin (e.g., breaks in the skin or penetration of skin by debris). /"G" Series Nerve Agents/
[Ellison, D.H., Emergency Action for Chemical and Biological Warfare Agents. CRC Press, Boca Raton, FL 1999., p. 14]**PEER REVIEWED**

Latency Period: Vapor: Effects from vapor exposure begin to appear 30 seconds to 2 minutes after exposure. Liquid: There is almost always a latent period with no visible effects between the time of exposure and the onset of symptoms. Effects from liquid exposure begin to appear from several minutes up to 18 hours after exposure. Onset of symptoms from exposure to large amounts of liquid agent may appear as rapidly as 1 minute after exposure. Generally, the more rapid the onset of symptoms, the larger the amount of agent involved in the exposure. /"G" Series Nerve Agents/



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TOXLINE

(Toxicology Bibliographic Info)

The screenshot shows the TOXLINE search results interface. At the top, there are navigation links for 'Env. Health & Toxicology', 'TOXNET', and 'TOXLINE'. The search term 'lewisite' is entered in the search box, with buttons for 'Search', 'Clear', and 'Limits'. Below the search box, it indicates 'Items 1 through 20 of 303' and that 'References are sorted in relevance'. A list of four references is displayed, each with a 'Select Record' checkbox and a 'Reference' title. The first reference is 'Toxicology studies reproduction study' by Sasser LB; Cushing J. The second is 'Therapeutic effects' by Nelson P; Hancock J. The third is 'Two-generation reproduction study of lewisite in rats' by Sasser LB; Cushing J. The fourth is 'Lewisite: its chemistry, toxicology, and biological effects' by Goldman M; Dacre JC. To the right of the list, there is a section for 'Authors' (Sasser LB, Cushing JA, Lindenmeier CW, Mellick PW, Dacre JC), 'Author Address' (Molecular Bioscience Department, Battelle, Richland, WA 99352-0999, USA), 'Source' (J Appl Toxicol. 1999 Jul-Aug; 19(4):229-35. [Journal of applied toxicology : JAT]), and an 'Abstract' section containing a detailed summary of the study on lewisite's effects on rats.

United States
NLM

TOXLINE

Env. Health & Toxicology TOXNET TOXLINE

lewisite

Search Clear Limits

Two-generation reproduction study of **lewisite** in rats.

Authors:

Sasser LB
Cushing JA
Lindenmeier CW
Mellick PW
Dacre JC

Author Address: Molecular Bioscience Department, Battelle, Richland, WA 99352-0999, USA.

Source: J Appl Toxicol. 1999 Jul-Aug; 19(4):229-35. [Journal of applied toxicology : JAT]

Abstract:

Lewisite, a potent toxic vesicant and chemical warfare agent, is used in a number of research laboratories, is stored in large quantities at depot sites throughout the USA and is occasionally transported to distant sites. Thus, the potential for environmental or occupational exposure exists where **lewisite** is present. A 42-week two-generation study was conducted to determine the reproductive consequences of **lewisite** in parental male and female rats and their offspring. Rats were administered **lewisite** in sesame oil (0, 0.10, 0.25 or 0.60 mg kg⁻¹ day⁻¹ for 5 days a week) via intragastric intubation before mating, during mating and after mating until the birth of their offspring. The dams continued to receive **lewisite** during lactation. At weaning, male and female offspring of each group were selected to continue the study, receiving **lewisite** during adolescence, mating and throughout gestation and lactation. **Lewisite** had no adverse effect on reproduction performance, fertility or reproductive organ weights of male or female rats through two consecutive generations. No adverse effects to offspring were attributed to **lewisite** exposure. Minor changes in growth were the only maternal effects observed. **Lewisite** exposure of parental rats caused no gross or microscopic lesion in testes, epididymis, prostate, seminal vesicles, ovaries, uterus or vagina. The no-observable-effect level (NOEL) for the reproductive effects of **Lewisite** would be > 0.60 mg kg⁻¹ day⁻¹.

For chemicals, add synonyms :

Items 1 through 20 of 303

References are sorted in *relevance*
Click on *Sort* to change the order

Select Record	Reference
1 <input type="checkbox"/>	Toxicology studies reproduction study Sasser LB; Cushing J. NTIS Technical Repo
2 <input type="checkbox"/>	Therapeutic effects Nelson P; Hancock J Toxicology. 2006, Mar PubMed Citation
3 <input type="checkbox"/>	Two-generation reproduction study of lewisite in rats Sasser LB; Cushing J. J Appl Toxicol. 1999 PubMed Citation
4 <input type="checkbox"/>	Lewisite: its chemistry, toxicology, and biological effects. Goldman M; Dacre JC

Cher
HSD
TOX
CCR
DAR
GEN
IRIS
ITER
Lact
Multi
TRI
Haz
Hous
TOX

Env.



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<http://hazmap.nlm.nih.gov>

Occupational Health Database

Link jobs, job tasks, exposures, symptoms

United States National Library of Medicine National Institutes of Health

Search NLM Web Site

NLM Home | Contact NLM | Site Map | FAQs

Environmental Health and Toxicology

SIS Specialized Information Services

SIS Home | About Us | Site Map & Search | Contact Us

SIS Home >

Environmental Health and Toxicology

Topics	Especially for
<ul style="list-style-type: none">▶ Chemicals and Drugs▶ Diseases and the Environment▶ Environmental Health▶ Occupational Safety and Health▶ Poisoning▶ Risk Assessment and Regulations▶ Toxicology	<ul style="list-style-type: none">▶ The Public▶ Researchers/Scientists▶ Health Professionals▶ Students/Educators▶ Emergency Responders▶ Hurricanes: Links to Health Information

Reference Tools	More to Explore
<ul style="list-style-type: none">A to Z List of ResourcesDatabase ManualNewsCalendar of Events <p>Listservs:</p> <ul style="list-style-type: none">NLM-TOX-ENVIRO-HEALTH-LWISER - Wireless Information System for Emergency RespondersMedlinePlus® Environmental Health e-mail Announcement List <ul style="list-style-type: none">More Chemical InformationPublications and Reference MaterialsList of NLM Databases and Resources	<ul style="list-style-type: none">Tox TownEnviro-Health LinksWISERALTBIBToxicology TutorialsToxicology Web LinksEducation and Career LinksFact SheetsDaMeEnInfDIPublic Health InformationHealth Services Research & Public Health Information ProgramsBookshelf

TOXNET®

Collection of databases on hazardous chemicals, toxic releases, and environmental health

Search TOXNET for:

Search a single database:

ChemIDplus	IRIS
CCRIS	ITER
DART	TOXLINE
GENE-TOX	TOXMAP
Haz-Map	TRI
Household Products	
HSDB	

[TOXNET FAQs](#)

Featured Site

New Enviro-Health Links resource on Hurricane Katrina: Links to Health Information

National Institute of Environmental Health Sciences: The primary NIH organization for environmental health research

HazMap



National Library of Medicine

NATIONAL INSTITUTES OF HEALTH U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Haz-Map – Occupational Toxicology



Search

Haz-Map Search More

Browse Haz-Map

Disease/Syndrome
Category
Acute/Chronic
Synonyms
Biomedical References
Comments

Latency/Incubation	1-7 days
Diagnostic	Polychrome methylene blue stain (Gram positive bacilli in long chains); Blood culture; [CCDM] PCR on blood or tissue; Paired sera (4-fold rise); [Lexi-ID, p. 42]
ICD-9 Code	022.9
Available Vaccine	Yes
Effective Antimicrobics	Yes
Reference Link	OSHA - Anthrax
Image	CDC Anthrax Images: Cutaneous Anthrax
X-Ray	CDC Anthrax Images: Inhalational Anthrax

Related Information in Haz-Map



Department of Health and Human Services
Centers for Disease Control and Prevention

CDC en Español

Search:

Emergency Preparedness & Response

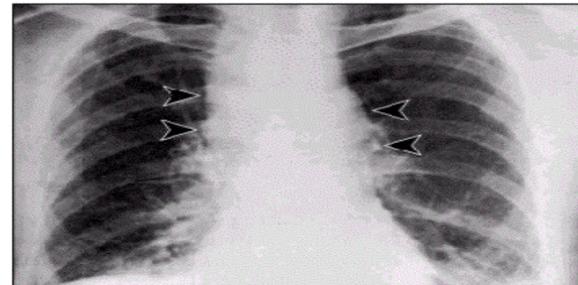
Home

- > [Emergency Preparedness & You](#)
- > [Agents, Diseases, & Other Threats](#)
- > [Bioterrorism](#)
- > [Chemical Emergencies](#)
- > [Mass Casualties](#)
- > [Natural Disasters & Severe Weather](#)
- > [Radiation Emergencies](#)
- > [Recent Outbreaks & Incidents](#)
- > [Mental Health](#)
- > [Lab Information](#)
- > [Training & Education](#)
- > [Preparation & Planning](#)
- > [Surveillance](#)
- > [News](#)
- > [Related Links](#)
- > [What's New](#)

[Bioterrorism](#) > [Agents](#) > [Anthrax](#) > [Images](#) >

Anthrax: Images: Inhalation Anthrax

Mediastinal widening with inhalation anthrax (JAMA 1999;281:1735-1745)



Mediastinal widening and pleural effusion on Chest X-Ray in inhalation anthrax

- [Email this page](#)
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- [lymphadenopathy](#)
- [mediastinal widening](#)
- [myalgia](#)
- [nausea, vomiting](#)



NATIONAL INSTITUTES

TOXMAP <http://toxmap.nlm.nih.gov>



TOXMAP Environmental Health e-Maps



[Home](#) [TRI Facilities](#) [TRI Releases](#) [TRI Trends](#) [Superfund](#) [Combo](#) [Search](#) [Help](#) [Contact Us](#)

[Welcome](#) [News](#) [Accessibility](#) [Fact Sheet](#) [For Teachers](#) [Tour](#) [About](#) [Site Map](#)

Quick Search

Select Dataset(s):

TRI Superfund NPL

Chemical Name

City

State ZIP [Lookup]

--

Search

Clear

[Choose a region...](#)

[More search options...](#)

[Search TOXNET TRI](#)

[? What is TOXMAP?](#)

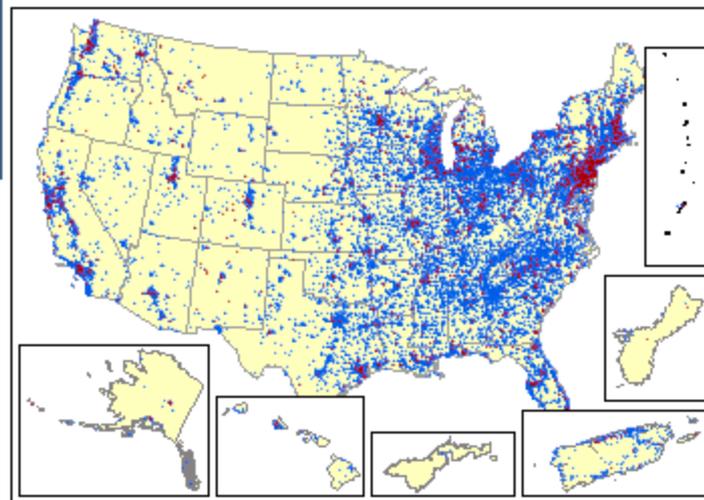
[? What is the Toxics Release Inventory \(TRI\)?](#)

[? What is the "Superfund" Program?](#)

[more...](#)

Use Quick Search or click on a map

to explore on-site toxic releases and hazardous waste sites from the [EPA's Toxics Release Inventory \(TRI\)](#) and the [Superfund National Priorities List \(NPL\)](#).



[TRI facilities \(blue\)](#) and [Superfund NPL sites \(red\)](#).

Environmental Tip of the Day

As you start your spring cleaning, do a home energy audit and switch to EnergyStar products.

- [TOXMAP now includes 2007 TRI data, ability to save search results](#)
- [Improved user interface, updated mortality data, and addition of hospital locations in TOXMAP](#)
- [TOXMAP Brochure now available \(PDF, 2.07MB\)](#)

Environmental News from EPA:

- [EPA Proposes To Remove Montclair/West Orange and Glen Ridge Radium Superfund Sites From Its Superfund List](#)
- [Oregon pest-control company reaches \\$1550 settlement with](#)



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Quick Search

Select Dataset(s):

- TRI
- Superfund NPL

Chemical

City

State ZIP [Lookup]

Search TOXMAP by TRI Facility Name, CAS/RN...

Questions

- [What is TOXMAP?](#)
- [What is the Toxics Release Inventory \(TRI\)?](#)
- [What is the "Superfund" Program?](#)
- [more...](#)

Enter search criteria to explore data and the Superfund



Chemical Reference Information

- HSDB** [\[i\]](#)
- Human Health Effects
 - Manufacturing/Use Info
 - Env. Fate / Exposure
- ATSDR** [\[i\]](#)
- ToxFAs & Public Health Statements
 - Public Health Assessments
 - General Documents

List of TRI chemicals

Toxicology Citations [\[i\]](#)
for Chemical & Map Area
[Search TOXLINE](#)

Questions

- [How are TRI trends calculated?](#)
- [What TRI chemicals are mapped in TOXMAP?](#)
- [Does TOXMAP show all sources of toxic chemicals released into or present in the environment?](#)
- [How accurate is TRI data?](#)
- [What should I understand about chemicals and toxicity while using TOXMAP?](#)

TRI facilities



U.S. Environmental Protection Agency

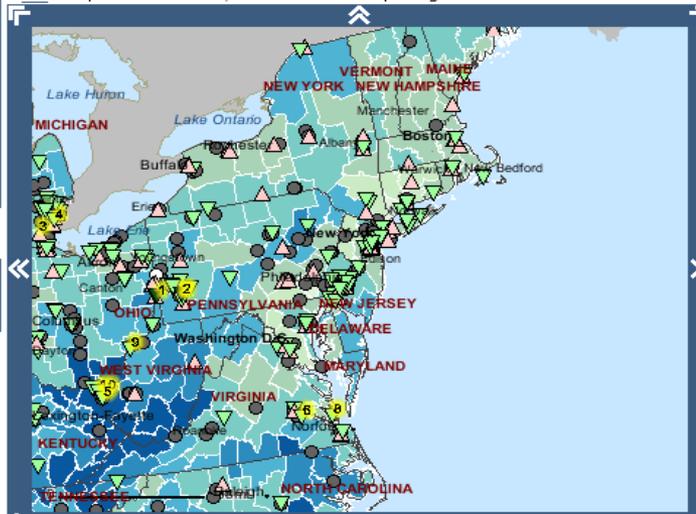
Data obtained from EPA

BENZENE (71-43-2)

TRI - Map shows 401 of 1,457 TRI facilities reporting nationwide between 1987-2004

[Start over](#)

[Print this map](#)



ZOOM

out

in

+

MOVE TO

Select a place

Switch to small map

Apply to this map

- [U.S. Census Data](#) [\[i\]](#)
- [Income Data](#) [\[i\]](#)
- [Health Data](#) [\[i\]](#)
- [Reference Data](#) [\[i\]](#)

See details for this map

Facilities reporting to TRI [\[i\]](#)

[Hide list](#)

- Page 1 of 41** (401 facilities total)
1. [WHEELING-PITTSBURGH STEEL CORP FOLLANSBEE PLANT](#)
 2. [USS CLAIRTON WORKS](#)
 3. [HOLCIM \(US\) INC DUNDEE PLANT](#)
 4. [UNITED STATES STEEL CORP GREAT LAKES WORKS](#)
 5. [CATLETTSBURG REFINING LLC](#)
 6. [HONEYWELL INTERNATIONAL INC HOPEWELL PLANT](#)
 7. [KOPPERS INC CLAIRTON TAR PLANT](#)
 8. [YORKTOWN REFINERY](#)
 9. [DEGUSSA ENGINEERED CARBONS L.P.](#)
 10. [AK STEEL CORP ASHLAND WORKS COKE PLANT](#)

MAP CONTROLS

TRI [\[i\]](#)

- None
- Facilities
- Releases : 2004
- Trends

Superfund [\[i\]](#)

- None
- All NPL
- NPL Final
- NPL Deleted
- NPL Proposed

Demographic [\[i\]](#) (more...)

- None
- All Causes - White Male - 1988-1992

[Search chemical](#) | [Define a custom map](#) | [Start over](#)

[Legend](#) [Brief](#) [Detailed](#) [\[i\]](#)



NLM Disaster Information Management Research Center

- Demonstrate how libraries and librarians can be part of the solution to this national problem.
- Ensure access to health information and effective use of libraries and librarians when disasters occur, and for planning and training purposes.

United States
National Library of Medicine
National Institutes of Health

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NLM Home | Contact NLM | Site Map | FAQs

Disaster Information Management Research
Improving access to the nation's disaster information

SIS Home | About Us | Site Map & Search | Contact Us

SIS Home >

About the Center	NLM Disaster Information Resources	Projects, Partnerships and Programs
<p>About the Disaster Information Management Research Center</p> <p>DIMRC Fact Sheet</p> <p>Contact the Center</p> <p>Presentations and Publications</p> <p>Disaster Recovery and Environmental Health</p> <p>Swine Flu Outbreak 2009 <i>NEW!</i></p> <p>Special Populations: Emergency and Disaster Preparedness</p>	<p>Disaster and Emergency Response Tools from NLM</p> <p>TOXNET - Toxicology and Environmental Health Resources</p> <p>NLM Disaster Preparedness and Response Web Links</p> <p>Information and Referral Tools from NLM</p> <p>Medical and Scientific Literature</p> <p>2009 Flu Info U.S. Info Things You Can Do Plan & Prepare International Info HHS.gov CDC.gov Get widget now! 2009 H1N1 (Swine) Flu Information</p>	<p>Disaster Information Research funded by the National Library of Medicine</p> <p>NLM Programs Related to Disaster Information</p> <p>NLM Partners Related to Disaster Information</p> <p>Libraries and Emergency Preparedness, Response and Recovery</p>

<http://disasterinfo.nlm.nih.gov>

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WISER

Wireless Information System for Emergency Responders

- Information on over 440 substances tailored for emergency responders
- Assist in identifying unknown chemicals
- Emergency treatment, safety and handling, and containment information



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NATIONAL INSTITUTES OF HEALTH U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

<http://wiser.nlm.nih.gov>

**Wireless Information System
for Emergency Responders**



United States
National Library of Medicine
Specialized Information Services

Search SIS Site:

[Home](#) | [About](#) | [News](#) | [Download](#) | [WebWISER](#) | [Help](#) | [Contact Us](#)

Welcome to **WISER**

the **Wireless Information System for Emergency Responders**

WISER is a system designed to assist first responders in hazardous material incidents. WISER provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice.

As of 12/4/08, the 4.2 version of WISER is available for [download](#) or via [WebWISER](#). See [what's new in 4.2](#).

Download

WISER is available as a standalone application on Windows Mobile devices, Palm OS PDAs, and Microsoft Windows PCs. [Download for free!](#)

Visit the [training page](#) to download materials that aid with training on the usage of WISER.

WebWISER

When an Internet connection is available, use your web browser to access the same functionality of the standalone applications. [WebWISER](#) supports both PC- and PDA-based browsers, including **BlackBerry** and **iPhone**.

Join the E-mail List

Want to get notices of WISER updates and news? [Join the WISER E-mail List](#) to automatically receive important announcements about WISER.

Other Hazmat-Related Resources at NLM

Radiation Event Medical
Management (REMM)

TOXNET

MedlinePlus offers trusted links to
general health topics

- Fire Safety
- Disasters and Emergency Preparedness
- Poisoning
- and more...

Household Products Database

Tox Town

Other Environmental Health Topics

Other Hazmat-Related Resources

DOT ERG - (Department of
Transportation - Emergency
Response Guidebook)

EPA Chemical Fact Sheets

ATSDR ToxFAQs



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[WebWISER PDA and Screen Reader Access](#)

Welcome to WebWISER



WISER is a system designed to assist first responders in hazardous material incidents. WISER provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice. For more information, please see the [WISER home page](#).

WebWISER is best viewed using Internet Explorer 7 (or higher) or Firefox 2 (or higher).

WISER is also available as a standalone application for PCs and PDAs. See the [WISER home page](#) for free downloads.

Substance List

Click here if you **know the name or ID of the substance** that you want to look up

Help Identify

Click here to have WISER help you **identify an unknown chemical** based on any of the following:

- Physical properties of the substance
- Signs/symptoms from exposure to the substance
- NFPA 704 full or partial placard values
- Substance categories (flammable, meth lab, etc.)
- Transport identification: DOT placard and/or type of rail car or road trailer



Other Hazmat-Related Resources at NLM

[Radiation Event Medical Management \(REMM\)](#)

[TOXNET](#)

MedlinePlus offers trusted links to general health topics

- [Fire Safety](#)
- [Disaster Preparation and Recovery](#)
- [Poisoning](#)
- [and more...](#)

[Household Products Database](#)

[Tox Town](#)

[Other Environmental Health Topics](#)

Other Hazmat-Related Resources

[DOT ERG - \(Department of Transportation - Emergency Response Guidebook\)](#)

[EPA Chemical Fact Sheets](#)

[ATSDR ToxFAQs](#)

[New Jersey Hazardous Substance Fact Sheets](#)

[CHEMTREC](#)

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[National Institutes of Health](#), [Health & Human Services](#)



What's New for WISER in Version 4.2?

- ✓ Map Protective Distance Data*
- ✓ Identify Chemicals by Transport**
- ✓ View Biological Agent Imagery**
- ✓ Improved Results List Grouping**
- ✓ Printing Support for ERG Tool*
- ✓ Improved Help Identify Unknown user interface for Windows Mobile
- ✓ Four new substances
- ✓ Data updates based on the latest HSDB, REMM, CIDRAP (biological agents), and EPA AEGL content
- ✓ Account for ERG 2008 errata
- ✓ Many miscellaneous user interface enhancements



*WISER for Windows only

**Not available with WISER for Palm OS

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WISER Training Scenario

Overtaken Tanker
(Known Substance)

Specialized Information Services
National Library of Medicine



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Scenario

You are the first responder on the scene of an overturned tanker.

Labels on the tanker, papers on board, and the driver all verify that the cargo is “Isopropyl Alcohol”, “UN 1219”.

The tank is leaking, there is a small fire caused by the engine, and the driver is suffering effects of inhalation of the chemical.



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Questions

- How big of an area around the tanker should you clear?
- What are the procedures for responding to the fire?
- What treatment should the driver receive?
- What is the environmental exposure summary for this substance?
- Can you locate the Emergency Response Guide page for this substance?

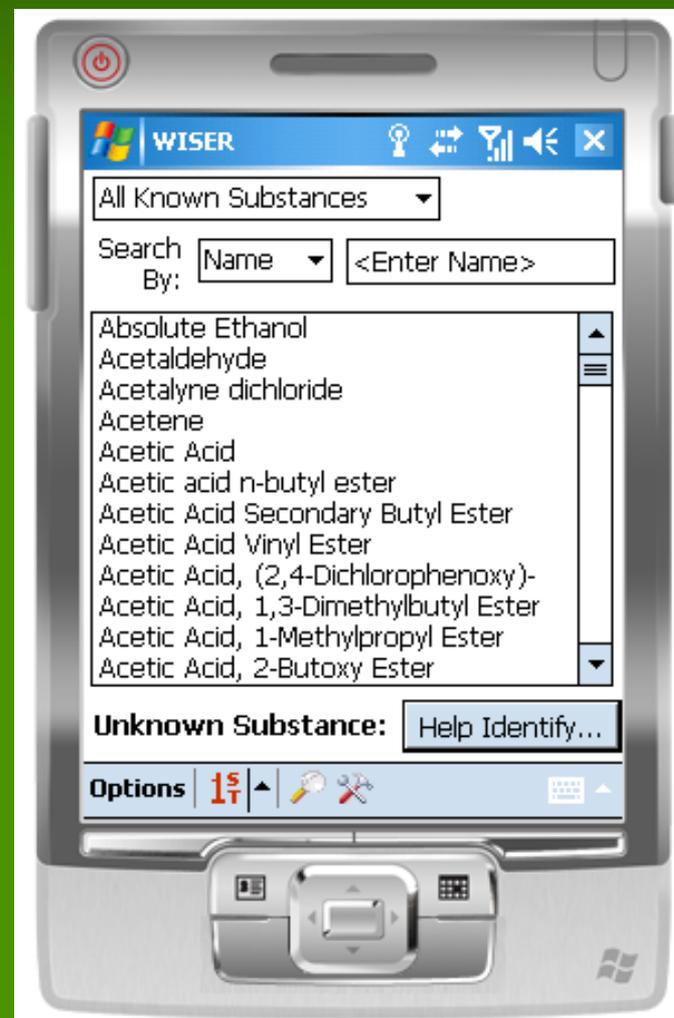


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Scenario Solution

The screenshots illustrate the following steps in the WISER interface:

- Screenshot 1:** The 'All Known Chemicals' dropdown menu is selected. The search field is empty.
- Screenshot 2:** The search term 'isopr' is entered. 'Isopropyl Alcohol' is highlighted in the search results.
- Screenshot 3:** The 'View Options' menu is open, and 'Protective Distance' is selected.
- Screenshot 4:** The 'Protective Distance' page is displayed, showing text extracted from ERG Guide 129.
- Screenshot 5:** The 'View Options' menu is open, and 'Hazmat - DOT Emergency Guidelines' is selected.
- Screenshot 6:** The 'Hazmat - DOT Emergency Guidelines' page is displayed, showing ERG2004 and Guide 129 information.
- Screenshot 7:** The 'View Options' menu is open, and 'Fire Fighting Procedures' is selected.
- Screenshot 8:** The 'Fire Fighting Procedures' page is displayed.
- Screenshot 9:** The 'View Options' menu is open, and 'Treatment Overview' is selected.
- Screenshot 10:** The 'Treatment Overview' page is displayed, showing oral exposure information.



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Scenario Solution (alternate)

The screenshots illustrate the process of finding Isopropanol in the WISER database:

- Screenshot 1 (10:35):** The search dropdown menu is open, showing 'UN/NA' as the selected search criteria.
- Screenshot 2 (10:37):** The search results list is displayed, with '1219 - Isopropanol' highlighted.
- Screenshot 3 (10:39):** The search field contains the number '12', which has filtered the results to Isopropanol.
- Screenshot 4 (10:15):** The detailed profile for Isopropanol is shown. The 'Environment' tab is selected in the left sidebar.

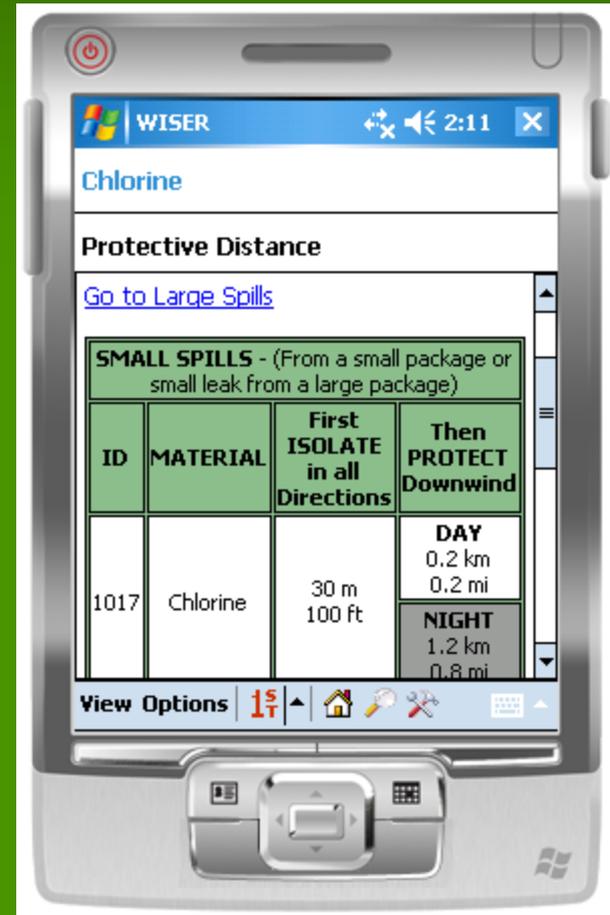


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Follow-Up

- Substance look-up by name or ID
- Hot Links make critical data readily accessible
- Hot Links vary by profile:
 - 1st Responder
 - Hazmat Specialist
 - EMS
- Integrated ERG data
 - Guide pages
 - Protective Distances, including Toxic Inhalation Hazards (“green table” data)



Radiological Event Medical Management (REMM)

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

REMM
RADIATION EVENT MEDICAL MANAGEMENT
Guidance on Diagnosis & Treatment for Health Care Providers

REMM HOME | CONTACT US | SITE MAP | ABOUT REMM

SEARCH

WHAT KIND OF EMERGENCY? | INITIAL EVENT ACTIVITIES | PATIENT MANAGEMENT | MANAGEMENT MODIFIERS | TOOLS & GUIDELINES

WHAT KIND OF EMERGENCY?

- Radiological Dispersal Devices:
 - Dirty Bomb, Other Dispersal Methods
- Radiological Exposure Devices: Hidden Sealed Source
- Nuclear Explosions: Weapons, Improvised Nuclear Devices
- Nuclear Reactor Accidents
- Transportation Accidents
- Discovering an Event

INITIAL EVENT ACTIVITIES

- Onsite Activities
- Triage Guidelines
- Hospital Activities

OTHER AUDIENCES

- First Responders in the Field
- Mental Health Professionals
- Hospitals
- Public Information Officers
- Radiation Safety and Protection
- Preplanning
- Practices and Drills
- Pet Owners

ABOUT THIS SITE

- What Are the Goals of This Site?
- Who Produced This Site?
- Disclaimers
- List of Consultants
- Join the REMM ListServ
- Contact us: Provide Site Feedback
- Download REMM to Your Computer/Mobile Device
- System Requirements: Allow Pop-ups, Download Adobe Reader

PATIENT MANAGEMENT

- Choose Appropriate Algorithm:
 - Evaluate for Contamination/Exposure
- Contamination
- Exposure (Acute Radiation Syndrome)
- Exposure + Contamination

MANAGEMENT MODIFIERS

- Radiation + Trauma
- Burn Triage and Treatment
- Mass Casualty
- Psychological Issues
- Specific Populations

TOOLS & GUIDELINES

- Dose Estimator for Exposure
- Template for Hospital Orders
- Use of Blood Products
- Follow-up Instructions
- Population Monitoring
- Management of the Deceased
- Develop a Radiation Response Plan
- Equip an Emergency Department for Decontamination

REFERENCE/DATA CENTER

- Training and Education
- Dictionary
- Animations, Illustrations, Photos
- Emergency Contacts
- Abbreviations
- Understanding Radiation
- Sources of Radiological/Nuclear Information

FEATURES

- Planning guidance for response to a nuclear detonation, 1/2009 (Homeland Security Council)
- Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners, 8/2007 (HHS/CDC)
- Medical Countermeasures Against Radiological and Nuclear Threats (NIH/NIAD)

QUICK LINKS

- **New Users: Where Do I Start?**
- **What's New on REMM**
- Patient Management Algorithms
- Print Algorithms & Tables
- Isotopes of Interest
- Countermeasures
- Decontamination Procedures
- Dose Estimator for Exposure
- Manage ARS Subsyndromes
- Hematopoietic Subsyndrome
- Cutaneous Radiation Syndrome
- Time/Dose Effects in ARS
- Time Phases of ARS
- Strategic National Stockpile
- Animations, Illustrations, Photos
- Dictionary
- Emergency Contacts
- **Download REMM (7/2008)**
- **Download Mobile REMM (12/2008)**

OTHER WEB RESOURCES

■ APRI	■ HPS
■ AHRQ	■ IAEA
■ CDC	■ ICRP
■ CRCPD	■ NCRP
■ DHS	■ NRC
■ DOE	■ OSHA
■ EPA	■ REACTS
■ FDA	■ RTN
■ HHS	■ WHO



<http://www.remm.nlm.gov/>

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UNDER DEVELOPMENT: CHEMICAL HAZARDS EMERGENCY MEDICAL MANAGEMENT (CHEMM)

- **What are the goals?**
 - To provide a comprehensive and user-friendly resource, CHEMM, to enable first responders, first receivers, other healthcare providers, and planners to plan for, respond to, recover from, and mitigate the effects of mass-casualty incident involving chemicals.
 - This resource will be available on the Internet and also for download so that it can be used in an emergency even without an Internet connection.



CHEMM - SCOPE

- Training
- Planning
- Response at time of emergency
- A unique contribution will be ease of use, e.g., during “on-the-spot” emergencies



CHEMM - AUDIENCES

- It will not cover “everything for everybody”
- Responders
 - Pre-hospital
 - Hospital-based
 - Emergency Department
 - Critical Care
- Healthcare providers: follow-up/recovery
- Planners
- Trainers



CHEMM - STATUS

- Project began in late 2008, with efforts to:
 - Discuss and agree on scope
 - Identify team and other resources
 - Develop timeline
- Are:
 - Developing original content
 - Identifying key sources to link to



Very important to consider what is available from existing sources, e.g., the CDC, EPA, NOAA, CHEMTREC, and others.

Need information sharing and collaboration.

Developing a “Smart Interface.”



Chemical Hazard Emergency Medical Management

SEARCH

WHAT KIND OF EMERGENCY?

INITIAL EVENT ACTIVITIES

PATIENT MANAGEMENT 

MANAGEMENT MODIFIERS

TOOLS & GUIDELINES

WHAT KIND OF EMERGENCY?

- Public Incident
- Terrorist Incident
- Transportation Accidents
- Multiple Agent Incident

INITIAL EVENT ACTIVITIES

- Estimation of Threat Zone (CAMEO)
- Onsite Activities
- Triage Guidelines
- Hospital Activities

OTHER AUDIENCES

- First Responders in the Field
- Mental Health Professionals
- Hospitals/Poison Centers
- Public Information Officers
- Industrial Hygienists/Toxicologists
- Preplanning
- Practices and Drills
- Other Information Providers, e.g. CHEMTREC

ABOUT THIS SITE

- What Are the Goals of This Site?
- Who Produced This Site?
- Disclaimers
- List of Consultants
- Join the CHEMM ListServ
- Contact us: Provide Site Feedback
- Download CHEMM to Your Computer 
- System Requirements: Allow Pop-ups, Download Adobe Reader[®]

PATIENT MANAGEMENT 

- Choose Appropriate Algorithm: Diagnosis by Toxic Syndromes

MANAGEMENT MODIFIERS 

- Responder Exposure and Management
- Burn Triage and Treatment
- Combined Injury Triage and Treatment
- Mass Casualty
- Psychological Issues
- Specific Populations

TOOLS & GUIDELINES 

- WISER
- CAMEO
- CHEMTREC
- Estimation of Exposure
- Template for Hospital Orders
- Follow-up Instructions
- Population Monitoring
- Management of the Deceased
- Develop a Chemical Response Plan

REFERENCE/DATA CENTER 

- Training and Education
- Dictionary
- Animations, Illustrations, Photos 
- Emergency Contacts   
- Abbreviations
- Understanding Chemical Exposure
- Sources of Chemical Information

FEATURES

- NIH Strategic Plan and Research Agenda for Medical Countermeasures Against Chemical Threats, 8/2007 (HHS/NIAID)
- HHS Public Health Emergency Medical Countermeasures Plan for Chemical, Biological, Radiological and Nuclear (CBRN) Threats, 4/2007 (HHS)

QUICK LINKS 

- New Users: Where Do I Start?**
- Use CHEMM: Earn CME
- Patient Management Algorithms 
- Print Algorithms & Tables 
- Specific Chemical Agents
- Countermeasures
- Decontamination Procedures
- Estimation of Exposure
- Strategic National Stockpile
- Enterprise CHEMPACK
- Animations, Illustrations, Photos 
- Dictionary
- Emergency Contacts 
- Download This Site** 

OTHER WEB RESOURCES

- | | |
|--------------|------------------|
| ■ ATSDR | ■ FDA |
| ■ CDC | ■ HHS |
| ■ ChemFinder | ■ NOAA |
| ■ DHS | ■ NRC |
| ■ DOD | ■ NSC |
| ■ EPA | ■ Poison Centers |

Next steps for CHEMM:

Ongoing development
Input and review from experts and potential users



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Goals for today

- Introduction to NLM resources of likely interest to this audience
- Announcement of NLM's efforts with others on CHEMM
- Set the stage for follow-up interactions, including:
 - a) seeking feedback and other help from you, and
 - b) possible training in-person or via the Web

Thanks. Questions or comments?



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