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## HUMAN HEALTH HAZARDS

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**Purpose**

***Increase the understanding and knowledge of Local Health Officers for identifying and addressing Human Health Hazards and Nuisances.***

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CHAPTER 250 HEALTH; ADMINISTRATION AND SUPERVISION
CHAPTER 251 LOCAL HEALTH OFFICIALS
CHAPTER 252 COMMUNICABLE DISEASES
CHAPTER 253 MATERNAL AND CHILD HEALTH
CHAPTER 254 ENVIRONMENTAL HEALTH
CHAPTER 255 CHRONIC DISEASE AND INJURIES
CHAPTER 256 EMERGENCY MEDICAL SERVICES
CHAPTER 257 EMERGENCY VOLUNTEER HEALTH CARE PRACTITIONERS

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251.02 health intervention strategies necessary to prevent morbidity and unnecessary mortality.  
 History: 1993 a. 27 ss. 163, 450; Stats. 1993 s. 250.02.

**250.03 Public health system. (1) The department shall:**

(a) Maintain a public health system in cooperation with local health departments, community organizations, and medical clinics that are operated by the governing bodies, or agencies of the governing bodies, of federally recognized American Indian tribes or bands located in this state.

(b) Serve as the state lead agency for public health.

(c) Assess the health needs in the state based on statewide data collection.

(d) Advise the legislature on the development of an adequate statutory base for health activities in the state.

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41.50 (d) Advise the legislature on the development of an adequate statutory base for health activities in the state.

(e) Establish statewide health objectives and delegate power to local health departments to achieve the objectives as the department considers appropriate.

**(f) Support local public health service capacity building through grants, consultation and technical assistance.**

(g) Develop policy and provide leadership in public health throughout the state that fosters local involvement and commitment, that emphasizes public health needs and that advocates for equitable distribution of public health resources and complementary private activities commensurate with public health needs.

(h) Distribute state and federal public health funds under its control in a manner that will promote the development and maintenance of an integrated system of community health services.

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chronic diseases, occupational and environmental hazards, unusual injuries and unusual changes in maternal and child health.

**(5) Where the use of any pesticide results in a threat to the public health, the department shall take all measures necessary to prevent morbidity or mortality.**

**(6) The department shall provide consultation, technical assistance and training regarding public health to local health departments, community organizations and others.**

**(7) The department may promulgate and enforce rules and issue and enforce orders governing the duties of all local health officers and local boards of health and relating to any subject matter under the department's supervision that are necessary to provide efficient administration and to protect health. Whoever violates a rule or order specified under this subsection shall be fined**

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5. The local health officer under par. (b).

4. The employee of a hospital, who provides, on a full-time basis, the services under s. 251.05 (2) (a), (b) or (c).

**(3) A local health officer shall:**

- (a) Administer the local health department in accordance with state statutes and rules.
- (b) Enforce state public health statutes and rules.
- (c) Enforce any regulations that the local board of health adopts and any ordinances that the relevant governing body enacts, if those regulations and ordinances are consistent with state public health statutes and rules.
- (d) Administer all funds received by the local health department for public health programs.
- (e) Appoint all necessary subordinate personnel, assure that they meet appropriate qualifications and have supervisory power

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under ss. 823.01, 823.02 and 823.07.  
**History:** 1973 c. 206; Sup. Ct. Order, 67 Wis. 2d 585, 774 (1975); 1977 c. 29 s. 1650m (4); 1993 a. 27 s. 358; Stats. 1993 s. 254.58; 1999 a. 150 s. 672.

**254.59 Human health hazards. (1)** If a local health officer finds a human health hazard, he or she shall order the abatement or removal of the human health hazard on private premises, within a reasonable time period, and if the owner or occupant fails to comply, the local health officer may enter upon the premises and abate or remove the human health hazard.

**(2)** If a human health hazard is found on private property, the local health officer shall notify the owner and the occupant of the property, by registered mail with return receipt requested, of the presence of the human health hazard and order its abatement or removal within 30 days of receipt of the notice. If the human health hazard is not abated or removed by that date, the local health officer shall immediately commence the necessary and appropriate

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GENERAL PROVISIONS

**254.01 Definitions.** In this chapter:

**(1)** "Environmental health" means the assessment, management, control and prevention of environmental factors that may adversely affect the health, comfort, safety or well-being of individuals.

**(2)** "Human health hazard" means a substance, activity or condition that is known to have the potential to cause acute or chronic illness, to endanger life, to generate or spread infectious diseases, or otherwise injuriously to affect the health of the public.

**History:** 1993 a. 27; 2007 a. 130.

*2011-12 Wisconsin Statutes updated through 2013 Wis. Act 116, December 30, 2013. Published and certified under s. 35.18. Chapter published 1-1-14.*

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**Human Health Hazard**  
 Wisc. Stat. 254.01(2)  
 "a substance, activity or condition that is known to have the potential to cause acute or chronic illness..."

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**Human Health Hazard**

Wisc. Stat. 254.01(2)

"a substance, activity or condition that is known to have the potential to cause acute or chronic illness **if exposure to the substance, activity, or condition is not abated.**"

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"a substance, activity or condition that is known to have the potential to cause acute or chronic illness ~~if exposure to the substance, activity, or condition is not abated,~~ **to endanger life, to generate or spread infectious diseases, or otherwise injuriously to affect the health of the public.**"

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## HUMAN HEALTH RISK ASSESSMENT

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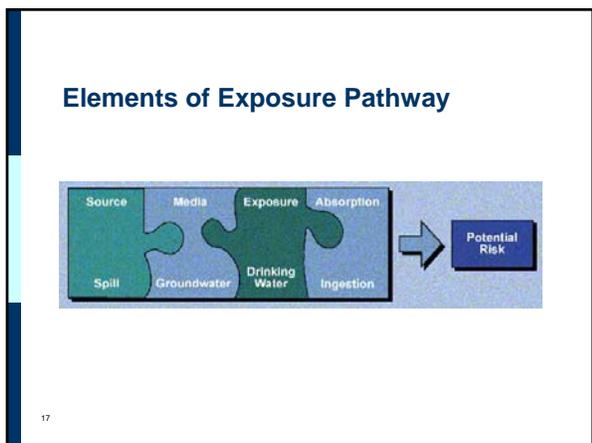
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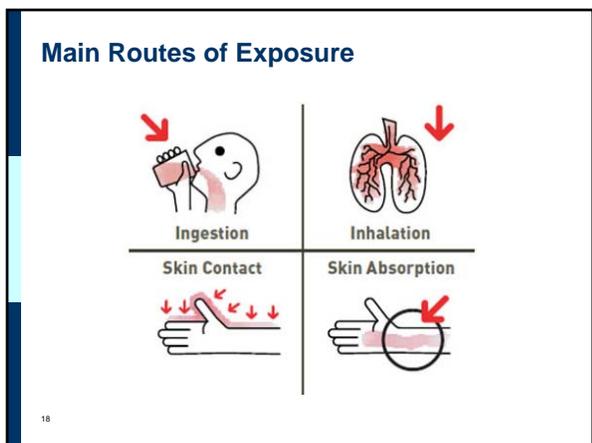
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### Common Environmental Chemical Toxins

- Pesticides
- Volatile Organic Compounds (VOCs)
- Heavy Metals
  - lead, mercury
- Acids and Bases
- Chlorine
- Ammonia
- Particulates
  - PM2.5 and PM10
- Dioxins and Furans
- Polychlorinated Biphenyls (PCBs)
- Combustion Gases
  - NOx, SO<sub>2</sub>, Ozone, CO, PAHs

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### Dose

- Amount of chemical entering the body
- Usually expressed as:
  - mg of chemical/kg of body weight/day =*
  - mg/kg/day***
- Dose is dependent upon...
  - environmental concentration
  - properties of toxicant (e.g., fat solubility)
  - frequency of exposure
  - duration of exposure (acute: 1-14 days; chronic: 1 year+)
  - route of exposure

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### Factors Affecting Individual Toxic Response

- Age
  - Gender
  - Genetics
  - Race/Ethnicity
  - Health and Nutrition
- } Primarily due to differences in detoxification and elimination capacity

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**Sensitive Populations**

- ▣ Children
- ▣ Pregnant women
- ▣ Elderly
- ▣ Individuals with compromised health conditions

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**Risk Characterization**

When people are exposed to a contaminant in the environment...

- ▣ what is the likelihood that adverse health effects will occur?
- ▣ how unacceptable is the health risk?

Exposure risk assessment  
can determine  
whether this is a  
*Human Health Hazard.*

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**The most difficult and challenging  
Human Health Hazard cases  
are not  
Black & White...**

**...but mixtures and shades of gray.**

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## FUEL OIL SPILLS

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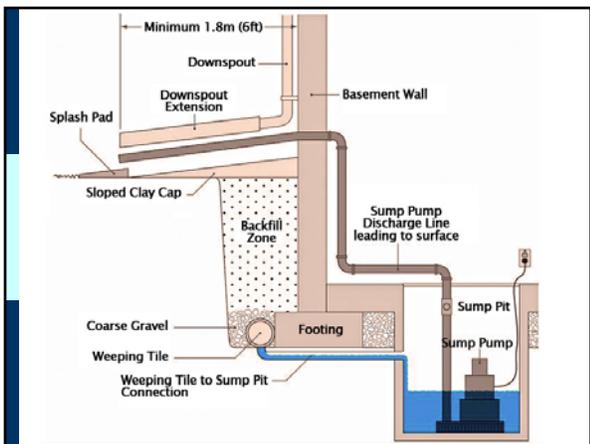
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### Indoor Air Sampling After Spill

(all levels less than 1.0 parts-per-billion)

- ❑ Propene
- ❑ Propane
- ❑ Methy Ethyl Ketone
- ❑ Hexane
- ❑ Hexanal
- ❑ Heptane
- ❑ Cyclohexane
- ❑ Benzene
- ❑ Toluene
- ❑ Ethylbenzene
- ❑ Styrene
- ❑ Ethyl Methyl Benzene
- ❑ Trimethyl Benzene
- ❑ Numerous Hydrocarbons

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Mold Investigations

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### What is "Toxic Mold"?

Mold has received a lot of attention in the media in recent years.

"Toxic Mold" is used loosely and has different meanings depending on the person using it.

- Avoid using the term "Toxic Mold"
- not a scientific term
  - can be misleading

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### Health effects of mycotoxins

- ❑ Mold is not toxic. Some molds produce toxic chemicals called "mycotoxins."
- ❑ Illness caused by mycotoxins are typically from ingestion of certain molds.
- ❑ Allergy is the health effect of concern in a residential setting due to inhalation of mold spores.
- ❑ There are no confirmed cases of mycotoxicity via inhalational in residential or office settings.
- ❑ Non-allergic (toxicological) illness via inhalation exposure can occur, but we only expect to see this in occupational settings.

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### Health Effects of Mold Exposure

"No case studies have unequivocally documented a cause/effect relationship for airborne mycotoxins or fungal volatiles in causing disease, by inhalation, in residential, school, or office settings."



Harriet Burge. 2001. *Ann Allergy Asthma Immunol*, 87 Supp.52-56.

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### Health symptoms (allergic response) reported by people living in mold-complaint houses

- ❑ runny nose, itchy eyes
- ❑ wheezing, cough, difficulty breathing
- ❑ headache
- ❑ skin rashes
- ❑ sinus problems
- ❑ disorientation, memory problems

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**Overview of Mold Investigations**

- 1) Role of public health provider
- 2) How to evaluate mold concerns
- 3) When and how to conduct mold investigations

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**1) What is Your Role?**

- Establish limits to your involvement. (what you can do, what you are allowed to do)
- Who should be involved? (Local resources? State? Child protection services? Housing services? Etc.)
- Should you be involved at all? (Is it your jurisdiction)?
- At a minimum, provide information.**

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**2) Evaluate if there is a reasonable mold concern.**

Ask questions

- Tell me about your problem?
- Why do you think it is a mold problem?
- When did this problem begin?
- What have you done to resolve it?
- Have you seen a physician about the problem?
- How can I help you with your problem?
- Are there ulterior motives (Landlord tenant issues?)

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**2) Evaluate mold concern (Cont.)**

If phone call identifies symptoms and other factors consistent with mold exposure, and you conclude that a mold issue is likely, next steps are to:

- Eliminate moisture source(s); and
- Conduct proper mold removal/remediation

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**2) Evaluate mold concern (Cont)**

If from a phone call (or other evaluation) you can not determine with certainty if a mold issue is likely or not, you may decide to conduct a visual inspection.

- Especially during and after natural disasters such as flooding (both seasonal and torrential events), wind/rain storms, plumbing leaks and power outages.

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**3) Visual inspection**

What do you look for?

- Moisture intrusion
- Water damage
- Musty odors
- Beds on the floor (condensation under mattress)
- Apparent mold growth
- Conditions that support mold growth

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### 3) Visual inspection (Cont.)

- Document! Use camera, notes, checklist  
[http://www.epa.gov/mold/mold\\_remediation.html#checklist](http://www.epa.gov/mold/mold_remediation.html#checklist)
- Consider bringing a second person
  - Safety
  - Liability/second opinion
  - Note taker/ photographer
  - Run interference
  - Confirmation of mold assessment

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### If Mold is present

Classify the mold situation based on status -  
Levels based on mold coverage.  
(Levels have no relation to health risk)

- Level 1 - photo example small isolated areas (10 sq. ft. ceiling tiles, small areas on walls)
- Level 2 - Mid-sized isolated areas 10-30 sq. ft. individual wallboard panels
- Level 3 - 30 to 100 sq. ft.
- Level 4 - Greater than 100 contiguous sq. ft.

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### Mold Coverage Levels



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**Mold Remediation**

You've determined mold is an issue. What next?

- ❑ **Situational** - Every site has unique details and solutions.
- ❑ **Correct moisture problem**
- ❑ **Remove highly contaminated materials**  
- carpets, furniture, gypsum board, wet insulation
- ❑ **Clean small areas of contamination**

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**Key Issues when addressing HHH**

- Partners
  - Your staff
  - Building Inspectors
  - Corporation Counsel
  - Police/Sherriff & Fire Department
  - District Attorney
  - Courts
  - Family Members
  - State Agencies (DHS, DNR, DATCP)
    - Federal Agencies?
- Existing Ordinances
- Inspection Warrant
- Communication
- Documentation

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**What is a Nuisance?**

(Wikipedia)

“A *public nuisance* is an unreasonable interference with the public's right to property.”

- activity or condition that is harmful or annoying to others.
  - indecent conduct, a rubbish heap or a smoking chimney
- harm caused by the before-mentioned activity or condition.
  - loud noises or objectionable odors
- a legal liability that arises from the combination of the two.

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