

# Hazardous Materials Awareness for NDMS Teams

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## Objectives

By the end of this module, the student should be able to:

- Recognize the function of OSHA, EPA, and CFR.
- Recall the four levels of hazardous materials training.
- Recall the activities and purpose of each hazardous materials "zone."
- Identify the four key parts to a hazardous materials placard and the significance of each part.
- Recall the four concepts of initial contaminated patient management.



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## Introduction

- Occupational Safety Health Administration (OSHA)
- Environmental Protection Agency (EPA)
- Both require employers to provide minimum training to personnel who "participate, or are expected to participate, in emergency response to a hazardous substance accidents."



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## Introduction

- What is a hazardous material?

- Chemical
- Biological
- Radiological
- Nuclear
- Explosive



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## Provider Levels

- Code of Federal Regulations
- Four levels of training:
  1. Awareness
  2. Operations
  3. Technician
  4. Specialist



- Incident Commander Training

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## Zone Designation

- Hot zone
- Warm Zone
- Cold Zone



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## Recognition and Identification

- 49 CFR 172, Department of Transportation
- Nine United Nations (UN) hazard classes
- Non-fixed Locations
  - Vehicles, containers, trailers at emergency
- Fixed Locations
  - Facility building



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## Recognition and Identification

- Signage
  - Placards color, four-digit number, diamond shaped multi-colored sign, number ranging from zero to four
  - Labels
- National Fire Protection Agency, NFPA 704



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## Scene Response

- Notification of Appropriate Agencies and Personnel
  - Local Fire Department
  - State Police
- Material Safety Data Sheet (MSDS)
- Resource Information
  - CHEMTREC (800-424-9300)
  - Regional poison information center
  - Local emergency planning committee



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## Weapons of Mass Destruction

- Biological and Radiological
- Terrorist Incident vs. HAZMAT Incident



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## Decontamination and Treatment

- Personal Protective Equipment (PPE)
- Center for Disease Control and Prevention  
Agency for Toxic Substance and Disease  
Registry
- Ambulatory Victims



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## Initial Management of Contaminated Patients

- Disaster team members must protect themselves
- Time, distance, and shielding
- Recognize what is contaminated
- If the patient is truly contaminated with a highly lethal agent, will decontamination be of practical use, or should other patients be managed instead?



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### Summary

1. Recognize the presence of a hazardous material incident based on clues, labels, placards, and other such evidence.
2. Provide for personal safety and know about appropriate PPE while involved in a hazardous material incident.
3. Safely interface with other agencies within the ICS at a hazardous materials incident.



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### Summary

4. Determine, to the degree possible, the hazardous material and its properties and effects on patients.
5. Know sources of information about the materials involved and notify the appropriate agencies.



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### Summary

6. Identify decontamination issues and determine the efficacy of decontamination processes, particularly prior to deciding whether or not to transport a patient.
7. Anticipate basic symptoms and therapies required for the hazardous material or its general chemical or biological class and provide appropriate treatment for the agent.



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