


# EMERGENCY PREPAREDNESS AND MENTAL HEALTH

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## Overview

- Types of Emergency Events
- Personal Protective Equipment
- Post Disaster Stress Management
- Personal Preparedness
- How to Become Involved



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## Assumptions

#1. Disaster Mental Health Professionals will NEVER be Deployed to an Unsafe or Unstable Environment.

#2. All Coordination and Planning Will Be Done Through TEMA and TN Dept of Health.

#3. Fear and Anxiety are Key Components of a "Successful" Manmade/Intentional Disaster.



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## TYPES OF EVENTS

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### CBRNE: Chemical, Biological, Radiological, Nuclear and Explosive

- Descriptions
- Effects
- Detection
- General Responses To



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### Chemical Event

- Commonly Classified by the Type of Harm Caused
  - Nerve Agents: Disrupt Nervous System, Cause Paralysis, Fatal Quickly
    - Sarin, VX, Tabun
  - Blister Agents: Destroy Skin and Tissues, Cause Blindness, May be Fatal
    - Mustard Gas, Phosphine
  - Choking Agents: Fluid-Filled Lungs, Quick or Delayed Fatality
    - Chlorine Gas
  - Blood Agents: Interferes with Oxygen at Cellular Level, Fatal Quickly
    - Cyanide Compounds
  - Riot-Control "R-C" Agents: Skin and Breathing Irritations, Rarely Fatal
    - Tear Gas



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### Chemical Event Detection

- Chemical Agents may be Solid, Liquid or Gas
- Some are Seen, Smelled, Tasted
- MOST CAN BE FELT (e.g. burning sensation, choking)
- All can be detected by appropriate instruments



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### Chemical Event Mitigation and Response

- Minimize Exposure!
  - Avoid Chemical Cloud
  - Cover Face to Filter Breathing
    - Respirator, Surgical Mask, Cloth
  - Shelter in Place
    - <https://www.emergency.cdc.gov/shelterinplace.asp>
- Get Medical Attention (if needed)
  - Skin Decontamination
  - Antidote if available



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### Biological Event

- Causes Disease and Death by Inhalation, Ingestion or Skin Contact
- Can be Contagious
- Three Main Types
  - Bacteria: Single-Celled Organisms, Can Reproduce, Antibiotic Tx
    - Anthrax, Tularemia, Plague
  - Virus: Live Inside Cells, Need Host to Reproduce, Vaccine and Antiviral Tx
    - Smallpox, Ebola
  - Biotxin: Non-Living (Can't Reproduce), Produced by Organisms, Antidote
    - Ricin, Animal Poisons (Pufferfish)



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### Biological Event Detection

- Cannot be Seen, Heard, Smelled or Felt
- Identified through Symptoms or Tests
- Important to Note Indicators
  - Many Patients with Same Illness at Same Time
  - Symptoms Unusual for Age
  - Type of Infection Rare to Region
  - Dead Animals Before Humans



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### Biological Event Mitigation and Response

- Identify Biological Agent
  - Source
  - Area Affected
  - Population Exposed
- Isolate and Contain Affected Areas and Populations
- Decontaminate Affected Areas
- Treat
  - Provide Vaccine or Medications to Affected Population
  - Mass Prophylaxis
  - If None Available, Provide Supportive Care



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### Radiological Event

- May be Intentional or Unintentional
  - Nuclear Emergencies
  - Dirty Bomb or Radiological Dispersal Device (RDD)
  - Radiological Exposure Device (RED)
  - Nuclear Power Plant Accident
  - Transportation Accidents
  - Occupational Accidents
- Radiates in All Directions and Bounces Off of Surfaces
- Protective Shielding Varies with the Type of Radiation
  - Alpha: Skin, Paper, 1-4" of Air
  - Beta: Less than 1/4" Metal, Glass, Concrete, 1-18' of Air
  - Gamma: 2-12" Lead, 3-18" Steel, 1-6' Concrete



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### Radiological Event Detection

- Cannot be Seen, Smelled, Tasted or Felt
- Can be Rapidly Detected by Instruments
- Explosions and Symptoms of High Radiation Doses Indicate a Radiological Attack
  - Explosive Release of Fine Powder or Solid Material
  - Skin Reddening
  - Headaches
  - Nausea and Vomiting
  - Hair Loss
  - Weakened Immune System



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### Radiological Event Mitigation and Response

- Three Rules for Protection from Radiation
  - Minimize Time of Exposure
  - Maximize Distance
  - Maximize Shielding
- Identify Presence of Increased Radiation
- Isolate and Contain Affected Area
- Shelter-in-Place or Evacuate
- Provide Immediate Medical Treatment
  - Potassium Iodide (KI)



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### Nuclear and/or Explosion Event

- A Nuclear Weapon is a Device that Uses a Nuclear Reaction to Create an Explosion
- Can Cause Significant Damage and Casualties from Blast, Heat and Radiation
- Devices Range from Small Portable Devices Carried by Individual to a Weapon Carried by a Missile
- Nuclear Fallout is Most Dangerous in the First Few Hours After the Detonation



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### Nuclear and Explosion Event Mitigation and Response

- Get Inside, Stay Inside
  - Brick or Concrete is Best
    - Basement or Middle of Building
  - Remove Contaminated Clothing and Wash Skin
  - 24 Hours Unless Instructed Otherwise
  - Reunite with Family, Loved Ones Later
  - Keep Pets Inside



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### PERSONAL PROTECTIVE EQUIPMENT



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### PPE and Universal Precautions

- Gloves
  - [https://www.youtube.com/watch?v=3l\\_kVNrEMo](https://www.youtube.com/watch?v=3l_kVNrEMo)

- Goggles



- Face Shields

- Surgical Masks



- Disposable Boot Covers



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# POST DISASTER STRESS MANAGEMENT

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Post Disaster Stress Can Occur When People Have Been Exposed to a Traumatic Event. Traumatic Events May Impact People Directly or Indirectly.



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## Post Disaster Stress Indicators

- Sleeping Difficulties
- Flashbacks
- Intense Memories
- Feeling Sad and Depressed
- Feeling Angry
- Feeling Helpless
- Physical Problems such as headaches, stomach aches and dizziness
- Difficulty Being Close to Others
- Feeling Numb
- Wanting to be Close to Family and Friends
- Overeating or Undereating
- Memory and/or Concentration Problems
- Impulse Control



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### Stress Management Skills

- Good Self Care (Sleeping, Eating, Rest)
- Use of Support System (Family, Friends, etc.)
- Set Realistic Short-Term Goals
- Maintain a Normal (or New) Schedule or Routine
- Make To-Do Lists and Prioritize Them
- Set Appropriate Limits for Yourself
- Be Aware of your Feelings
- Decrease Environmental Stressors
- Reach Out to Others; Do Not Isolate
- Keep Active; Exercise
- Avoid Overexposure to the Disaster Coverage (Media)




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### Be Wary of Secondary Traumatic Stress!

“It is believed that secondary traumatic stress is the natural and inevitable consequence, over time, of working with trauma-affected clients. Some researchers have identified secondary traumatic stress as a ‘job hazard’ of trauma counseling... working with trauma-affected clients over time effects the counselor’s frame of reference about self, others, and the world as well as their self-capacity, ego resources, and memory. More specifically, this kind of work has a cumulative transformative effect on counselors because they become witnesses and enter empathically into the traumatized person’s experience, suffering through graphic descriptions and enactment.”

-American Counseling Association




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### PERSONAL PREPAREDNESS




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**Get a Kit, Make a Plan!**

- Basic Emergency Supply Kit
  - [https://www.fema.gov/media-library-data/1390846764394-dc08e309debe561d866b05ac84daf1ee/checklist\\_2014.pdf](https://www.fema.gov/media-library-data/1390846764394-dc08e309debe561d866b05ac84daf1ee/checklist_2014.pdf)
- Family Plan
  - <https://www.ready.gov/make-a-plan>
- Communicate and Practice!!



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**HOW TO BECOME INVOLVED**

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**Disaster Mental Health Professionals Needed!**

- Regional Strike Teams
- Train the Trainer
- Contact Area Leaders



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**QUESTIONS?**

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Thank You!

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