

Dealing with Human Remains

In disasters, there is the possibility of coming in contact with people who have died under tragic circumstances. Leave in place and notify mortuary affairs or your chain of command. Note that human and animal remains do not pose a disease threat for people not directly involved with recovery.

If you do work directly with remains:

- ▶ Wear latex or similar gloves with a cut-proof inner glove.
- ▶ Limit exposure to the stimuli - use screens and barriers to reduce views.
- ▶ You may experience a variety of feelings. Do not keep these emotions inside. They are normal, and are best worked through by talking with your team.
- ▶ Do not hesitate to talk with a chaplain or with a mental health provider in your area.

Supply Information

Item	NSN
Sunscreen Lotion	6505-01-121-2336
Non-alcohol Lotion Base Sunscreen	6505-01-267-1486
DEET Insect Repellent	6840-01-284-3982
Permethrin (IDA Kit) ("Shake & Bake")	6840-01-345-0237
Hearing Protection - Sound Guard Earplugs	6515-00-137-6345

Bloodborne Pathogens

If you come in contact with blood or other body fluids, treat the blood and body fluids as infectious. Wear gloves and eye protection. If necessary, you can improvise with a towel or plastic bag to avoid contact.

Displaced Animals

Stress can change the temperament of normally friendly pets. Wild and domesticated animals will seek shelter in unusual places to avoid the rising waters. Do not handle birds or displaced animals. Do not keep pets or mascots. Contact animal control specialists for help.

Insects

Initially, most insects are displaced by the tsunami. However, mosquitoes and flies will rebound at significantly higher levels. To reduce exposure to harmful insects, use the DOD Insect Repellent System:



*Do not treat Flame-Resistant Army Combat Uniforms (FR ACU's) with permethrin using the IDA kit, aerosol can, or 2-gallon sprayer method. Contact your local preventive medicine unit for further information.

Hazardous Plants

Some plants can irritate the skin if touched. When burned they can irritate the skin and lungs. Avoid skin contact with plants when possible and wash contaminated skin and clothing after contact. Leaves of three – leave them be.

Personal Protective Equipment (PPE)

The level of personal protective equipment (PPE) required will depend upon your role in the effort. Anticipate and bring items such as a hard hat, goggles, heavy work gloves, steel-toed boots and hearing protection. Some PPE items may not be standard issue for most U.S. military personnel.

Military Vaccine Requirements

Refer to MILVAX at <http://www.vaccines.army.mil/> for up-to-date vaccine requirements.

DISTRIBUTION UNLIMITED



<http://phc.amedd.army.mil>
1-800-222-9698

SHG-026-0311

Deployment Health Guide: Tsunami Response

USAPHC (Provisional)

This deployment health guide provides information that can help reduce your risk of injury and disease when deployed in response to a disaster. Army G-1 Personnel Policy Guidance (<http://www.armyg1.army.mil/MilitaryPersonnel/ppg.asp>) requires that you also receive a preventive medicine briefing prior to your deployment.

Overview

Tsunami is a set of ocean waves caused by a large, abrupt disturbance of the sea surface. If the disturbance is close to the coastline, local tsunamis can demolish coastal communities within minutes. A very large disturbance will cause local devastation and then export tsunami destruction thousands of miles away.

The main hazards associated with tsunami response are exposure to floodwater, physical injury, electrical hazards, carbon monoxide, heat and cold stress, unstable structures, hazardous materials, fire, drowning and confined spaces.

Communication

Other Federal, state, and local officials may have higher authority than your agency and they may be coordinating the on-scene efforts. Communicate with them and understand how your mission fits into the response efforts.

Site Safety

Before you begin any response efforts, an on-scene safety officer should brief you about site safety and health issues. As conditions and missions change, the safety officer should provide updated information to allow for adjustments in safety measures.

Exposure to Floodwater

Floodwater can disrupt water purification and sewage disposal systems and cause toxic waste and chemical storage sites to overflow. Most floods do not cause serious disease outbreaks but they can cause sickness in workers who encounter contaminated floodwater. Avoid unnecessary contact with floodwater. Assume that floodwater is not safe unless authorities have specifically declared it safe. To avoid disease, wash hands at every opportunity. Before entering floodwaters, you should don plastic or rubber gloves, boots, and other protective clothing needed to avoid contact with floodwater.

Physical Injury

Moving debris can cause cuts, scrapes, bruises, and sprains especially to the hands, back, knees, and shoulders. Wear leather gloves, safety goggles, and steel-toed shoes. Avoid lifting more than 50 pounds per person. Be sure you've had a tetanus vaccination within the past 10 years.

Electrical Hazards

If there has been water anywhere near electrical circuits and electrical equipment, turn off the power at the main breaker or fuse on the service panel. Do not turn the power back on until the electrical equipment has been inspected by an electrician. If you must work near a downed power line, contact the utility company to de-energize and ground or shield the power lines.

Carbon Monoxide

Carbon monoxide is a colorless and odorless gas that can kill you. Gasoline- or diesel-powered pumps, generators and pressure washers produce carbon monoxide. Never operate gasoline-powered equipment indoors. Symptoms of low-level exposure include shortness of breath, mild nausea, and mild headaches. If you suspect carbon monoxide exposure, move to fresh air immediately and seek medical attention.

Heat and Cold Stress

Heat

- ▶ Full heat acclimatization takes 7-14 days of physical exertion in the heat. Physical exertion should start slowly but increase in intensity and duration.
- ▶ Drink enough water to replace sweat loss. If your urine becomes dark yellow and infrequent, drink more fluid.
- ▶ Use work-rest cycles and when possible, work during the cooler hours of the day. (See Figure 1)
- ▶ Get medical attention for heat cramps, exhaustion, or stroke.
- ▶ Use sunscreen.

Figure 1: Fluid Replacement and Work/Rest Guide

Heat Cat	WBGT Index, °F	Easy Work		Moderate Work		Hard Work	
		Work/Rest (min)	Water Intake (Qt/H)	Work/Rest (min)	Water Intake (Qt/H)	Work/Rest (min)	Water Intake (Qt/H)
1	78° - 81.9°	NL	½	NL	¾	40/20	¾
2	82° - 84.9°	NL	½	50/10	¾	30/30	1
3	85° - 87.9°	NL	¾	40/20	¾	30/30	1
4	88° - 89.9°	NL	¾	30/30	¾	20/40	1
5	> 90°	50/10 min	1	20/40	1	10/50	1

Easy Work = Walking on a hard surface at 2.5 mph with less than 30 lbs., weapon maintenance, marksmanship training

Moderate Work = Patrolling, walking in sand at 2.5 mph with no load, calisthenics

Hard Work = Walking in sand at 2.5 mph with load, field assaults

Cold

- ▶ Remember **C-O-L-D**: keep clothing **C**lean, avoid **O**verheating, wear clothing **L**oose and in layers, and keep clothing **D**ry.
- ▶ Standing or working in water that is cooler than 75° F will remove body heat faster than it can be replaced and can result in hypothermia. Take frequent breaks **out of the water**.
- ▶ Change your socks frequently to keep your feet dry.
- ▶ Use the buddy system to check for signs of cold injury.

- ▶ Get medical help for loss of sensitivity in any body part, mental slowness, or uncontrollable shivering.

Unstable Structures

Flood waters can damage walkways, parking lots, roads, buildings, and open fields. Don't work around any flood-damaged building until it has been certified safe by an engineer or architect. Assume all structures are unsafe until they are inspected. Leave at once if shifting or noise signals a possible collapse.

Hazardous Materials

Flood waters may dislodge tanks, drums and pipes containing hazardous materials. Contact the local fire department or hazardous materials team before moving unidentified containers. In contaminated areas, wear protective clothing and respirators. Wash exposed skin areas frequently.

Fire

Fire protection systems may be inoperable. Bring two or more fire extinguishers with a UL rating of at least 10A (suitable for putting out wood, paper and cloth fires) to each cleanup job.

Drowning

When entering moving water, you are at risk for drowning, regardless of your ability to swim. Avoid working alone and wear a life jacket when working in or near flood waters. Comply with all road hazard warnings and avoid driving into water of an unknown depth.

Confined Spaces

Toxic gases, a lack of oxygen, or explosive conditions may exist in a confined area. Because many toxic gases and vapors cannot be seen or smelled, **never** enter a confined space unless you have been properly trained; even to rescue a fellow worker! Contact the fire department for help.

If you are certified to enter confined spaces:

- ▶ Molding or fermenting agricultural materials in confined spaces may generate large amounts of toxic gases which could cause lung damage or death if inhaled.
- ▶ Turn on fans or blowers in silos and other storage areas at least 30 minutes before entering and leave them on while working.