

## **At-A-Glance Cards**

**Quick Reference Guide for Trained Community Volunteers** 

### Doing the greatest good for the greatest number

Quick Reference Guide Only – See C.E.R.T. Manual for Course Material

### **UNIT 1:** Cards 1-3

Disaster Preparedness

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Operations – Part 1

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Terrorism & CERT

## Disaster Preparedness – Unit 1

Roles & Responsibilities for Community Preparedness					
The Government	Emergency Operations Plan	Community Leaders	The Public	C	Citizen Corps Councils
Organizes & coordinates their agencies activities for effective operations in an emergency.	The EOP is a document that describes how the community will function in an emergency	Collaborate in a planning council to cover the needs of their community in an emergency.	learn, ad voluntee	sponsibility to equire skills & r in community acy preparedness.	Bring government & community leaders together to ensure plans reflect community needs.
	Key	Elements of Disa	asters		
► Relatively Unexpected ► Emergency services overwhelmed ► Lives, health & environment endangered					
	lmp	act on the Infrastr	ucture		
Transportation St	tructures Comm	unication Utilities	Wa	ater Fu	iel Finances
	Home	& Workplace Prep	aredne	ess	
Develop a Disaster Plan Disaster Supplies					
□ Hazards in your □ Evacuation & Es □ Contact #'s if Se □ Emergency #'s □ Utility Shutoff Ins □ Fire Hazards & E	cape Plan parated structions Extinguishers	First Aid & CPR Train Neighbors Skills & Ne Disaster Training Skil Child Care Needs Special Needs Disaster Supplies	eeds	<ul><li>Food</li><li>Kitchen Item</li></ul>	& Medications plies

### **Disaster Preparedness - Unit 1**

### **Reducing Impact of Hazards through Mitigation**

Mitigation is any activity that prevents an emergency, reduces the likelihood of occurrence, or reduces the damaging effects of unavoidable hazards such as:

Purchase Insurance, (flood ins unavailable)	Anchor heavy Furniture	Secure Appliances & Office Equipment	Label Utility Shutoffs gas, electric & water
Secure Cabinet Doors with childproof fasteners	Secure Water Heaters & install flexible Gas Lines	Bolt House to foundations	Strap Propane Tanks & Chimneys
Strap Mobile Homes to their slabs	Raise Utilities above the level of flood risk	Build a Safe Room	Shelter-in-place to reduce risks
Burglar Bars & Locks easy to open from inside	Install Flexible Pipe Fittings for water and gas	For roofing avoid using Wooden Shakes & Shingles	Dry Vegetation, Wood, & Propane should be 30ft away from home

### Role of CERT after an Emergency or Disaster

Personal & family safety	Responds in a group capacity, according to standard operating procedures, to assist in:			
Shutting off Utilities	Extinguishing Small Fires	Treating Life Threatening Injuries	Conducting Light Search & Rescue	
Helping Survivors cope with stress	Community Shelter Support	Crowd & Traffic Management	Evacuation	
With appropriate training, and under cafe conditions until professional responders take over				

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### Fire Suppression Safety - Unit 2

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### **Fire Chemistry**

**Buddy System Required** 



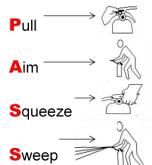
**HEAT:** Elevates temperature of material to ignition point.

**FUEL:** Type and quantity of solid, liquid or gas fuel determines extinguishing method.

**OXYGEN**: 20% needed for fire.







#1 Person puts out fire #2 Watches for hazards

### **Fire Suppression Safety Rules**

- Use safety equipment at all times.
   Feel closed doors with back
- Always work with a buddy.
- Have a backup team whenever possible.
- Always have 2 ways to exit the fire area
- Look at the door. If air is being sucked under the door or smoke is coming out of the top, do not touch the door.
- Feel closed doors with back of hand, working from bottom up. If hot, there is fire. Do not open the door.
- Confine the fire by closing doors when possible.
- Stay low to the ground for fresher air to breathe.
- Maintain a safe distance.
- Never turn your back on fire.
- Overhaul the fire to be sure it is extinguished.
- Do not get too close. If you feel the heat U are too close!
- Do not enter smoke filled areas.
- Once used, lay the depleted depleted extinguisher on its side. Store on its side until recharged.

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Do CERT SIZEUP. Extinguish SMALL FIRES ONLY, before they become big fires!

### Fire Safety Hazards - Unit 2

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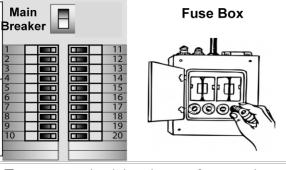
### **Electrical Hazards**

### **Respond to Electrical Emergencies**

#### **Fire Prevention Measures**

### Circuit Breakers or Fuses

Eliminate	Don't overload	Maintain care
tangled cords	outlets	of appliances
Replace	Don't run cords	Repair or replace
broken/frayed	under	malfunctioning
cords now	carpets	appliances.



### Flammable/Combustible Hazards

#### **Fire Prevention Measures**

# Locate potential sources of ignition in home or business

	Flammables Combustibles	Corrosives	Compressed Gasses	Explosives
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Limit, Isolate, Eliminate, Separate

■ LOCATE circuit breakers or fuses and know how to shut off the power. Post the shut-off instructions next to breaker or fuse box.

■ UNSCREW individual fuses

**OR SWITCH OFF** smaller breakers first, then pull the main switch or breaker.

☐ TURN POWER BACK ON: Turn main switch or breaker first, then screw in fuses, or switch on smaller breakers.

DO NOT ENTER flooded basement or standing water to shut off power. WATER CONDUCTS ELECTRICTY!

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### Fire Safety & Natural Gas – Unit 2



**Natural Gas Presents 2 Types of Hazards** 

1. ASPHYSIANT that robs the body of oxygen 2. EXPLOSIVE that Ignites

Use Smoke Alarms and Carbon Monoxide Detectors on all levels of your home & bedrooms.

Carbon Monoxide Detectors should not be installed within 15 feet of heating or cooking appliances, nor humid areas such as bathrooms and laundry rooms.

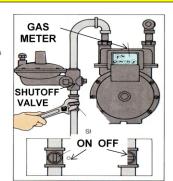
#### Gas Meter Inside Home

DO NOT SHUT OFF GAS unless instructed by local authorities. EVACUATE PREMISES and CALL 911 if you smell gas or the meter shows a gas flow even with appliances off.

#### **Gas Meter Outside Home**

- ☐ Turn off the gas meter if you smell gas or the meter shows a gas flow even with appliances turned off.
- ☐ If there is a fire you cannot extinguish, CALL 911!
- ☐ Turn off gas only if it is safe to do so.
- ☐ A trained technician must turn gas back on.
- ☐ If a light source is needed to turn off the gas use a flash light, not a candle.
- Shut the valve off by turning the non-sparking wrench clockwise, one quarter turn.





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### Fire Types & Extinguishers









CLASS	TYPE	TYPE OF FUEL	EXAMPLES	WATER	FOAM	DRY Chemical	CO2	WET Chemical
A		Ordinary Solid material	wood, paper, cloth, plastics	A	A	4		
В		Flammable Liquids	gasoline, oil, kerosene		В	В	В	
C		Live Electrical Equipment	wiring, motor computer			C	C	
D		Combustible Metals	aluminum titanium	Sp	ecial ag	ents for sp	ecific m	etals
K		Kitchen Oils	cooking oils					K

### Capacity - Range - Pressure

## WATER

Standard Capacity: 2.5 Gallons Standard Range: 30-40 feet Pressure: 110 PS

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### 2 TYPES OF DRY CHEMICAL

- Sodium Bicarbonate base: Used for CLASS B,C
- Monoammonium phosphate base: Used for CLASS A,B.C Standard Capacity: 10-20 seconds

Standard Range: 8-12 feet Standard Pressure: 175-250 PSI

### **Interior Wet Standpipes**



- Found in apartments and commercial buildings.
- Consists of 100 ft of hose with adjustable spray nozzle.
- Delivers 125 gallons of water per minute.
- #1 Person removes hose.
- #2 Person opens water valve.

### Fire Safety & Hazardous Material - Unit 2



### Types of Hazardous Material & DOT Placards

### **Characteristics**



NON-FLAMMABLE











- □ Corrodes other materials
- Explodes or is easily ignited
- ☐ Reacts strongly with water
- ☐ Unstable when exposed to heat or shock
- ☐ Toxic to humans, animals or the environment

### Consider these Placards a STOP sign to CERT

### National Fire Protection Association (NFPA) 704 Diamond Placard



CERT. Your only duty is to **EVACUATE** those down wind to an uphill location, away from hazard. DO NOT enter a building to evacuate.

Rating Number 1-2-3-4Higher Number - Higher Risk Number 0 - No Hazard/Stable

### FLAMMABILITY HAZARD

**HEALTH HAZARD** 

**INSTABILITY HAZARD** 

SPECIFIC HAZARD

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#### SPECIFIC HAZARD SYMBOLS

ALK **Alkaline ACID** Acid COR Corrosive OX Oxidizing Radioactive W **Explosive with water** OX **Explosive with oxidizing** 

## Simple Triage And Rapid Treatment

Doing the greatest good for the greatest number of people

### **PHASE 1: SORT & PRIORITIZE Treatment**

## MINDR

Walking Wounded

## **IMMEDIATE**

Life Threatening

### DELAYED

Serious but Not Life Threatening

### DEAD

No Respirations

### **Voice Triage**

"We are a Community Emergency Response Team. If you can, walk come to the sound of my voice!"

If needed, ask these survivors to assist & provide information.

Obstructive

**AIRWAY** 

Excessive

**BLEEDING** 

Signs of

SHOCK

If victim is conscious ask permission to treat, otherwise it is assumed.

Injuries Do Not Jeopardize Victim's Life.

Professional care may be needed.

Transport to Treatment Area after life threatening needs have been initiated.

CPR is NOT Performed

When there are more victims then rescuers.

Leave body where found & evacuate later

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### **Disaster Medical Operations - Unit 3**



### Initiate Treatment for IMMEDIATE Life Threatening Conditions

### Open AIRWAY



Not Breathing Head-Tilt/Chin-Lift



X 2

LOOK LISTEN FEEL

### Still Not Breathing

Tag: DEAD

Move to

Next victim

# Breathing Maintain Airway

Ask bystander or victim with MINOR INJURIES to hold airway open.

Control Excessive

## BLEEDING



ARTERY: Spurts
VENOUS: Flows
CAPILLARY: Oozes

### Direct Pressure



**Elevate** 



Pressure Bandage



**Pressure Points** 

Brachial
Inner Arm
Femoral
Upper Thigh
Popliteal
Behind knee

Apply pressure between the wound and the

heart

Tourniquet: Used as last resort to SAVE victim's LIFE. 5 L of Blood, 1 L lost - Endangers Life

# Treat for SHOCK



#### **Blanche Test**

Capillary Refill Time
Use
Palm
or
Finger

- ☐ CRT: > greater than 2
- Respirations: >greater than 30
  Radial Pulse: rapid.threadv. weak
- ☐ Mental Status: fails command:

"Squeeze my hand"

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Control bleeding.
Keep body warm.
Handle carefully.
NO food or drink.



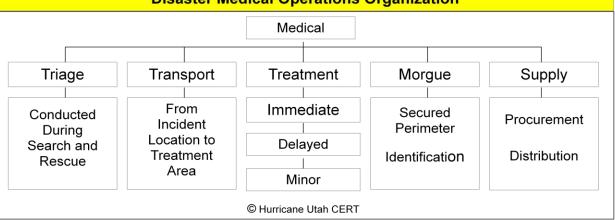


### Disaster Medical Operations - Unit 4



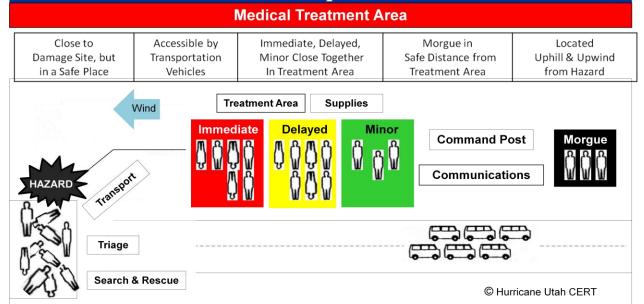
### **Public Health Considerations**





### **Disaster Medical Operations - Unit 4**

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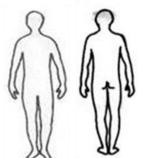
Head-to-Toe Assessment	Document			
Lay victims 2-3 ft apart. Assess one patient from head-to-toe, then start at the head of the next patient, moving through the row of victims.	Name – Address – Phone – Age – Sex – Body Build – Estimated Height – Clothing Injuries – Treatment – Transfer Location			
MINOR – These people may stay, help or leave, but document if they leave.				

### Disaster Medical Operations - Unit 4

### **Conducting Head-To-Toe Assessment**

Assessment and treatment begins in TRIAGE for the 3 Killers only, then in the TREATMENT AREA

Do Head-to Toe Assessment on all victims LOOK - LISTEN - FEEL for DCAP-BTLS



- **D**eformities
  - Contusions
- **A**brasions
- **P**unctures
- **B**urns
- **T**enderness
- Lacerations
- **S**welling

#### **TREAT & DOCUMENT**

Signs of a Closed-Head, **Neck or Spinal Injury** 

Inability to move 1

or more body parts

Loss of consciousness Scalp

wound

Fracture

Swelling deformities

Vomiting Tingling or

Nausea or

numbness in extremities

Difficulty

Seizures

seeing Uneven pupils

Raccoon eyes bruising

Blood from nose or ears

Severe pain or pressure in head, neck or back

Difficulty breathing

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### Stabilizing Head, Neck or Spinal Injury







Tuck cloth on either side of head to stabilize



Step 4

Chemical Burns - I Suspect if NO sign of fire.

Step 1 Step 2 Step 3

# **Disaster Medical Operations - Unit 4**

### 14



Superficial Lst DEGREE



**Partial** Thickness nd DEGREE



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Full Thickness 3rd DEGREE

Hair Follicle **EPIDERMIS** BONE

**Burn Classification** 

**DERMIS** 

FAT MUSCLE

charred (black/brown) Painful OR relatively painless

- Reddened, dry skin Painful
- Swelling (possible)
- Reddened & blistered
- Wet appearance
- Swelling (possible)
- Painful

Whitened, leathery or

Inhalation Burns - I

□ Protect yourself.

☐ Brush away chemical.

☐ Flush for 15 minutes.

■ Apply cool, wet compress.

□ Treat for shock if needed.

☐ Cover loosely-clean, dry cloth

- ➤ Loss of consciousness
- ➤ Soot around mouth or nose
- ➤ Singed facial hair
- ➤ Burns around face or neck
- > Respiratory distress or obstruction

**Keep Airway Open** 

### **Guidelines for Treating Burns**

- □ REMOVE Victim from source & PUT OUT flames.
- □ REMOVE smoldering clothes unless they are stuck.
- ☐ TREAT all 3<sup>rd</sup> degree burn victims for Shock. □ LOOSEN clothing near affected area.
- □ REMOVE jewelry if needed.
- □ **DOCUMENT** what, when & to whom jewelry was given.
- ☐ HYPOTHERMIA risk for infants, young, elderly & severe.
- ☐ IMMERSE in cool water,1 minute OR cover with clean wet, wrung out compresses.
- □ COOL 15% of body at a time, no more due to risk of hypothermia (No Ice)
- ☐ COVER loosely-sterile dressings.
- ☐ ELEVATE burned extremities above the heart
- WRAP fingers & toes separately and loosely.

#### Severity of Burns

Temperature of Agent - Exposure Time - Area Effected - Size of Area -Depth of Burn

### **Disaster Medical Operations - Unit 4**

### **Cleaning & Bandaging Wounds**

Irrigate with clean room temp water, check for infection every 4-6 hours.

Signs of Infections
☐ Swelling

- □ Discoloration□ Red striations from the wound site
- Change treatment from **D** to I





Impaled Objects



### **Amputations**

### With the severing of a limb or other body part

- Control bleeding.
- Treat for shock.
- Locate & keep body part with victim.
- Save tissue parts, wrap in clean material & place in plastic bag.
- Keep cool, but not in direct contact with ice.
- Label:

Date	
Time	
Victim's Name	



### When a foreign object is lodged in the body

- ☐ Immobilize the affected body part.
- Do Not remove unless it is obstructing airway.
- Control bleeding at entrance wound without undue pressure on object.
- Clean & dress wound making sure to stabilize the impaled object with bulky dressings.



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Place all soiled bandages, dressings and gloves in a plastic bag entitled Hazardous Waste.

### **Disaster Medical Operations – Unit 4**

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### Treat a Fracture, Dislocation, Sprain or Strain as if a FRACTURE

Strain
Stretched or torn
Strotom



**Dislocation** Injury to the ligaments around a joint that permits a separation of the bone from its normal position in a joint.

#### Open Fracture Bone protrudes through the skin

Tendons



Closed Fracture Does not Puncture The skin

Muscles

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#### Open fractures bring risk of severe bleeding & infection.

**Open Fracture**: Do Not draw exposed bone end back into the tissue. Do Not irrigate the wound.

**Dislocation Fracture:** Do not try to reposition or relocate.

- ☐ Cover the wound with a sterile dressing.
- ☐ Place a moist 4X4 dressing over the bone end to keep it from drying out.
- ☐ Immobilize the joint &splint the fracture without disturbing the wound.
- Assess the pulse, movement & sensation (PMS) of a limb that has been dislocated.
- Immobilize & elevate sprains and strains.

#### Splinting



### Treating Hypothermia

SIGNS: Body temp 95° or less, red or blue skin, numbness & shivering, LATER: Slurred speech, listless



- ☐ Remove wet clothing & reduce exposure to cold
- ☐ Give warm-sweet drinks & food if conscious
- ☐ Wrap victim in a **blanket** or sleeping bag, covering the victims head & neck.
- ☐ Do Not massage to warm body parts.
- ☐ You may need to treat for shock.
- ☐ If unconscious, place victim in recovery position.
- □ Do not let victim walk around even if he or she appears to be fully recovered.

If unconscious, lay in **RECOVERY POSITION** with blankets for warmth

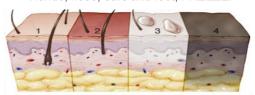


#### **Frostbite**

#### SIGNS

Skin Discoloration, Burning or Tingling, Numbness

Blood vessels constrict to conserve body heat. Body shunts blood toward vital organs. Hands, nose, ears and feet, FREEZE.



Normal - Frostnip - Superficial - Deep



#### Warm Slowly

Thawing too rapidly can cause chilled blood to flow to the heart. shocking & potentially stopping it.

Do Not Massage! Ice crystals form in tissues Wrap body parts in Dry-Sterile Bandage carefully!

### **Disaster Medical Operations - Unit 4**

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### **Heat Related Injuries**

#### **Heat Cramps**

Over exertion in heat & heavy sweating brings dehydration & electrolyte imbalance, leading to **MUSCLE SPASMS**.

#### **Heat Exhaustion**

Heavy Sweating from heat brings blood flow to skin, decreasing blood flow to vital organs. Results in Cool-moist-pale skin OR flushed, headache, dizziness Nausea or vomiting – Leading to **SHOCK** 

#### **Heat Stroke**

**TEMPERATURE** controls fail & **RISES** as high as 105° Hot-red skin, No perspiration, Rapid-weak Pulse, Rapid-shallow breathing - **DEATH** can result

#### **Treatment for Heat Exhaustion & Stroke**



### Bites and Stings

Remove stinger by scraping it with the edge of a credit card. Wash with soap & water.

Place ice, wrapped in cloth, on the site for 10 min, then off 10 min & repeat.

#### **Anaphylaxis**



Stinger





#### Check Airway & Breathing.

Help victim find & administer Epi-pen



### Nasal Injuries

Sit & lean forward slightly



### Pinch nostrils

together or put pressure on the upper lip just under the nose.

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### **Light Search & Rescue Operations – Unit 5**

### 19

### SIZEUP

- Gather Facts
- 2. Assess Damage
- 3. Consider Probabilities
- 4. Assess Your Situation
- 5. Establish Priorities
- 6. Make Decisions
- 7. Develop Plan of Action
- 8. Take Action
- 9. Evaluate Progress

Hazards in Area Time & Weekday Type of Building & Terrain Occupancy Weather

### **Light Damage**

- Superficial damage, cracks in wall surface
- Minor damage to interior

### **Moderate Damage**

- Visible signs of damage
- Deco work damaged
- Visible cracks in wall
- Major damage to interior contents
- Building on foundation

### **MISSION**

**Triage** 

**Treat 3 Killers** 

**Evacuate Victims** 

**Warn Others** 

**Document** 

### **Heavy Damage**

- Partial/total collapse
- Tiltina
- Structural instability
- Bldg off its foundation
- Heavy smoke or fire
- Hazardous materials
- Gas leaks
- Rising or moving water

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Do Not Enter

Secure Building **Perimeter** 

Warn Others of Danger



### Communicating Damage Found Using the ABCD Standard

A is Front of Building: Going in Clockwise direction each wall takes on the next letter: B then C then D. The inside gets broken into quadrants. A victim or hazard located closest to the A & B sides of the structure is in the A/B quadrant, etc.

## **Light Search & Rescue Operations – Unit 5**

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### **Specific Safety Considerations**

**Buddy System Hazards Alert** Safety Equipment **Backup Teams Conducting Interior Search Exterior Search** Search Markings Systematic Search **Grid Search** 1. Call out to victims. to come to your voice & get Upon 3/11/17 info about the bldg & victims Entering 10 am Hurr Slash 2. Use a systematic pattern. Authorities brief the searchers on Utah **CERT ID** Bottom-up/Top-down CERT

Right wall/Left wall

- 3. Stop frequently to listen.
- 4. Triangulate:

3 rescuers, guided by victim sounds, form a triangle around are & direct flashlights into area to eliminate shadows that could hide victim.

5. Report results

- what they are looking for.
- Area to be searched is viewed as a
- Searchers remain within line of sight & voice contact of each other.
- They also overlap in the search.
- They maintain a straight line across their designated row of the grid.
- CERT's record each area that has been searched.

### Areas of Entrapment or Voids Leave immediately with collapsed walls & floors

"V" Void

Date

Time

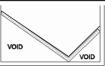
Upon

**Exiting** 

Slash

Areas Searched

+ Specifics



3/11/17

10 am

Victims

Hurr

Utah

© Hurricane Utah CERT

CERT

Area

Searched

Hazards

**LEAN-TO** Void



**PANCAKE** Void

