



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

UNIT 2: Cards 4-8

Fire Safety &
Utility Control

UNIT 3: Cards 9-10

Disaster Medical
Operations – Part 1

UNIT 4: Cards 11-18

Disaster Medical
Operations - Part 2

UNIT 5: Cards 19-22

Light Search & Rescue
Operations

UNIT 6: Cards 23-24

C.E.R.T.
Organization

UNIT 7: Card 25

Disaster
Psychology

UNIT 8: Card 26-27

Terrorism
& CERT

Disaster Preparedness – Unit 1

1

Roles & Responsibilities for Community Preparedness

The Government	Emergency Operations Plan	Community Leaders	The Public	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.	Has a responsibility to learn, acquire skills & volunteer in community emergency preparedness.	Bring government & community leaders together to ensure plans reflect community needs.

Key Elements of Disasters

- ▶ Relatively Unexpected
- ▶ Emergency services overwhelmed
- ▶ Lives, health & environment endangered

Impact on the Infrastructure

Transportation Structures Communication Utilities Water Fuel Finances

Home & Workplace Preparedness

Develop a Disaster Plan

- | | |
|---|---|
| <input type="checkbox"/> Hazards in your community | <input type="checkbox"/> First Aid & CPR Training |
| <input type="checkbox"/> Evacuation & Escape Plan | <input type="checkbox"/> Neighbors Skills & Needs |
| <input type="checkbox"/> Contact #'s if Separated | <input type="checkbox"/> Disaster Training Skills |
| <input type="checkbox"/> Emergency #'s | <input type="checkbox"/> Child Care Needs |
| <input type="checkbox"/> Utility Shutoff Instructions | <input type="checkbox"/> Special Needs |
| <input type="checkbox"/> Fire Hazards & Extinguishers | <input type="checkbox"/> Disaster Supplies |

Disaster Supplies

- Water (8 drops bleach/gallon)
- Food
- Kitchen Items
- First Aid Kit & Medications
- Tools & Supplies
- Sanitation
- Clothing & Bedding
- Documents
- Special Items

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Disaster Preparedness – Unit 1

2

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

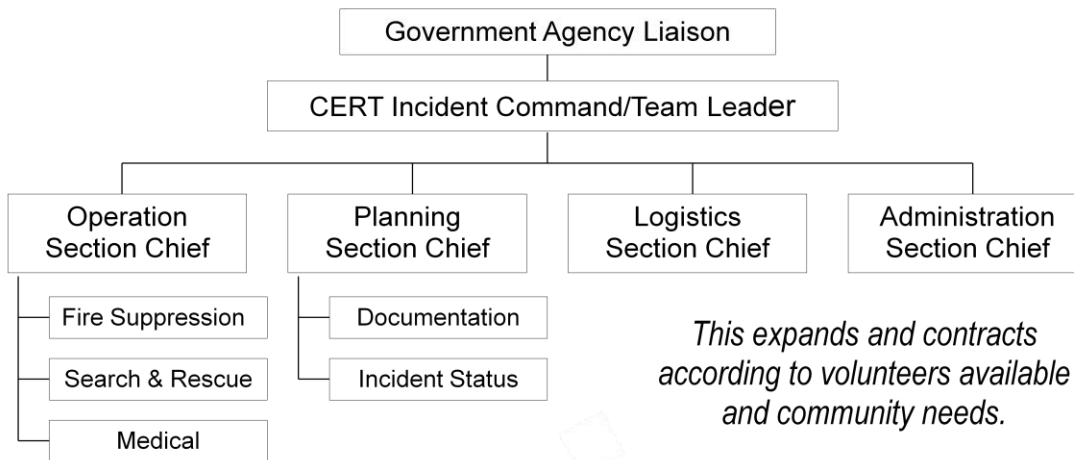
Role of CERT after an Emergency or Disaster

① Personal & family safety	② 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 safe conditions until professional responders take over

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CERT Organization



Personal Protective Equipment (PPE) & Gear



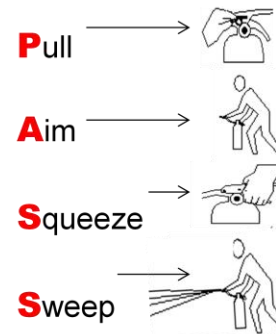
Fire Suppression Safety – Unit 2

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.
- 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 to top. 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

5

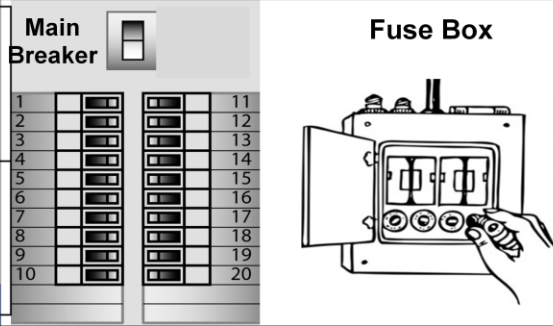
Electrical Hazards

Respond to Electrical Emergencies

Fire Prevention Measures

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

Circuit Breakers or Fuses



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 ELECTRICITY!**

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Fire Safety & Natural Gas – Unit 2

6

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.

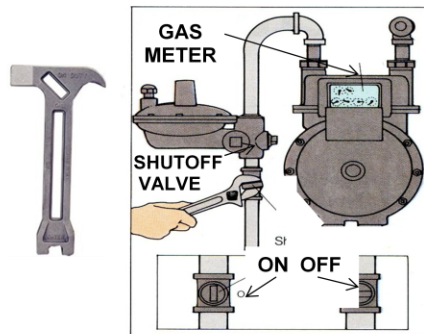
Carbon Monoxide Detectors should not be installed within 15 feet of heating or cooking appliances, nor humid areas such as bathrooms and laundry rooms.

Gas Meter Inside Home

DO NOT SHUT OFF GAS unless **EVACUATE PREMISES** and **CALL 911** if you smell gas instructed by local authorities. 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 Safety – Unit 2

7

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	A		
B		Flammable Liquids	gasoline, oil, kerosene		B	B	B	
C		Live Electrical Equipment	wiring, motor computer			C	C	
D		Combustible Metals	aluminum titanium	Special agents for specific metals				
K		Kitchen Oils	cooking oils					K

Capacity – Range – Pressure

Interior Wet Standpipes

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



- 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

8

Types of Hazardous Material & DOT Placards

Characteristics



- 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 – 4
Higher Number – Higher Risk
Number 0 – No Hazard/Stable

FLAMMABILITY HAZARD
HEALTH HAZARD
INSTABILITY HAZARD
SPECIFIC HAZARD

SPECIFIC HAZARD SYMBOLS

ALK	Alkaline
ACID	Acid
COR	Corrosive
OX	Oxidizing
	Radioactive
<u>W</u>	Explosive with water
OX	Explosive with oxidizing

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Simple Triage And Rapid Treatment

Doing the greatest good for the greatest number of people

PHASE 1: SORT & PRIORITIZE Treatment

MINOR 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!”	Obstructive AIRWAY Excessive BLEEDING Signs of SHOCK	Injuries Do Not Jeopardize Victim’s Life. Professional care may be needed.	CPR is NOT Performed When there are more victims than rescuers.
If needed, ask these survivors to assist & provide information.	If victim is conscious ask permission to treat, otherwise it is assumed.	Transport to Treatment Area after life threatening needs have been initiated.	Leave body where found & evacuate later

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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  5-7 min	Pressure Bandage 
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 	<ul style="list-style-type: none"> <input type="checkbox"/> CRT: > greater than 2 <input type="checkbox"/> Respirations: >greater than 30 <input type="checkbox"/> Radial Pulse: rapid,thready, weak <input type="checkbox"/> Mental Status: fails command: “Squeeze my hand”	Control bleeding. Keep body warm. Handle carefully. NO food or drink. 

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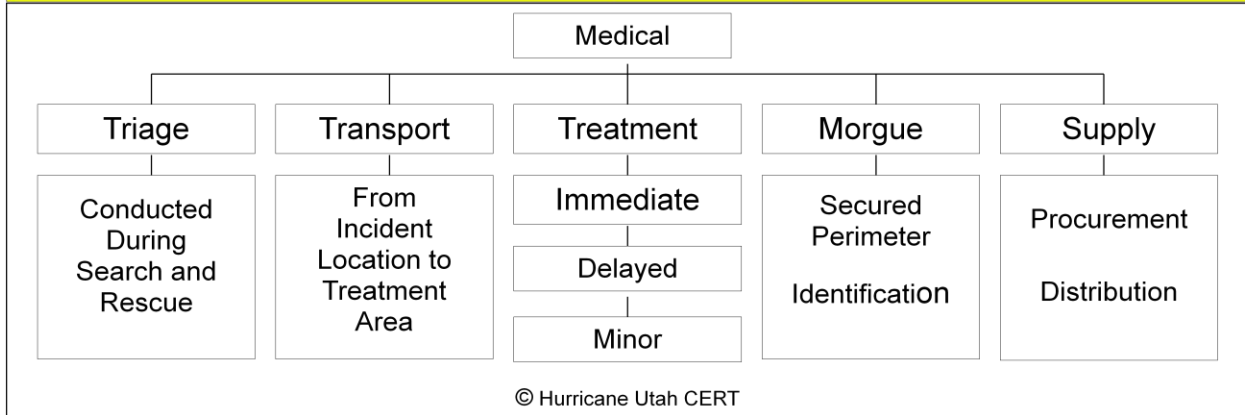
Disaster Medical Operations – Unit 4

11

Public Health Considerations

Prevent the Spread of Disease	Hygiene	Sanitation	Water Purification
 <p>Cover wounds</p>	<p>REPLACE OR DISINFECT GLOVES between patients with bleach</p> <p>Bleach Wipes or 1 part bleach to 10 parts water</p>  <p>1:10</p> <p>Clean areas of contact with body fluids</p>	<p>Dispose of medical waste in a Hazardous Waste container. Bury human waste.</p>  <p>Medical Waste</p> <p>Marked bag or Biohazard Bag</p>	<p>8 drops to 1 gallon</p> <p>Let stand for 30 minutes.</p> <p>Use only purified water on wounds</p>  <p>8 drops</p> <p>16 drops if cloudy or dirty</p>

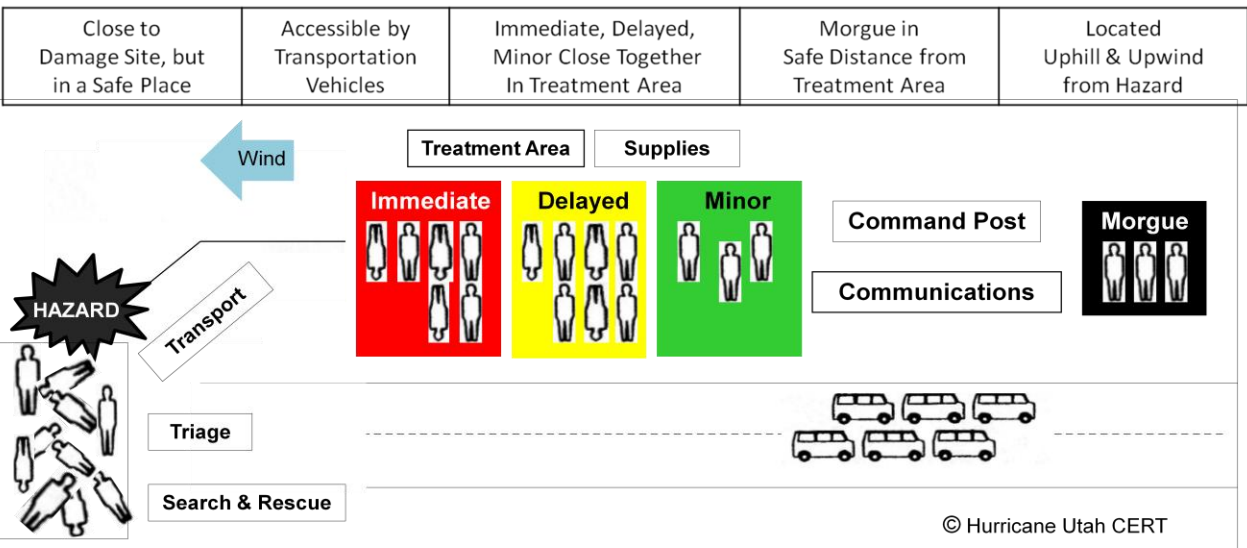
Disaster Medical Operations Organization



Disaster Medical Operations – Unit 4

12

Medical Treatment Area



Head-to-Toe Assessment

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.

Document

Name – Address – Phone – Age – Sex – Body Build – Estimated Height – Clothing Injuries – Treatment – Transfer Location

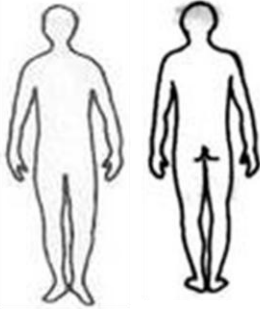
MINOR – These people may stay, help or leave, but document if they leave.

Conducting Head-To-Toe Assessment

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

Signs of a Closed-Head, Neck or Spinal Injury

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



- Deformities
- Contusions
- Abrasions
- Punctures
- Burns
- Tenderness
- Lacerations
- Swelling

Loss of consciousness		Seizures	
Scalp wound		Difficulty seeing	
Fracture		Uneven pupils	
Swelling deformities		Raccoon eyes bruising	
Nausea or Vomiting		Blood from nose or ears	
		Severe pain or pressure in head, neck or back	
Tingling or numbness in extremities		Inability to move 1 or more body parts	Difficulty breathing

TREAT & DOCUMENT

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Stabilizing Head, Neck or Spinal Injury



Step 1

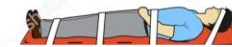


Step 2



Step 3

Tuck cloth on either side of head to stabilize



Step 4

Burn Classification



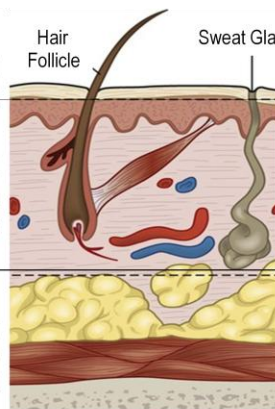
Superficial
1st DEGREE



Partial Thickness
2nd DEGREE



Full Thickness
3rd DEGREE



- Reddened, dry skin
- Painful
- Swelling (possible)

EPIDERMIS

- Reddened & blistered
- Wet appearance
- Painful
- Swelling (possible)

DERMIS

- Whitened, leathery or charred (black/brown)
- Painful OR relatively painless

FAT

MUSCLE

BONE

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Chemical Burns – I

Suspect if NO sign of fire.

- Protect yourself.
- Brush away chemical.
- Flush for 15 minutes.
- Apply cool, wet compress.
- Cover loosely-clean, dry cloth
- Treat for shock if needed.

Inhalation Burns – I

- 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

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> REMOVE Victim from source & PUT OUT flames. <input type="checkbox"/> REMOVE smoldering clothes unless they are stuck. <input type="checkbox"/> TREAT all 3rd degree burn victims for Shock. <input type="checkbox"/> LOOSEN clothing near affected area. <input type="checkbox"/> REMOVE jewelry if needed. <input type="checkbox"/> DOCUMENT what, when & to whom jewelry was given. <input type="checkbox"/> HYPOTHERMIA risk for infants, young, elderly & severe. | <ul style="list-style-type: none"> <input type="checkbox"/> IMMERSE in cool water, 1 minute OR cover with clean wet, wrung out compresses. <input type="checkbox"/> COOL 15% of body at a time, no more due to risk of hypothermia (No Ice) <input type="checkbox"/> COVER loosely-sterile dressings. <input type="checkbox"/> ELEVATE burned extremities above the heart <input type="checkbox"/> WRAP fingers & toes separately and loosely. |
|---|--|

Severity of Burns

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

Cleaning & Bandaging Wounds

<p>Irrigate with clean room temp water, check for infection every 4-6 hours.</p> 	<p><u>Signs of Infections</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Swelling <input type="checkbox"/> Discoloration <input type="checkbox"/> Red striations from the wound site <p><u>Change treatment from D to I</u></p>	<p>Apply dressing & bandage</p> 	<p>Active Bleeding</p> 	<p>Redress over the existing wound & maintain Pressure.</p>  <p>Elevate</p>
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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 _____



Impaled Objects

When a foreign object is lodged in the body

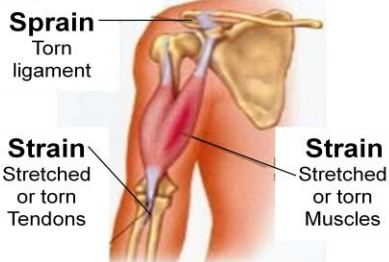
- Immobilize the affected body part.
- Do Not remove unless it is obstructing airway.
- Control bleeding at entrance wound without undue pressure on object.
- Clean & dress wound making sure to stabilize the impaled object with bulky dressings.



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

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



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



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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



Disaster Medical Operations – Unit 4

17

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

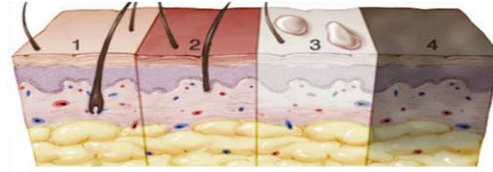


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Frostbite

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

18

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

Remove from heat
Lower temp with fan Elevate feet

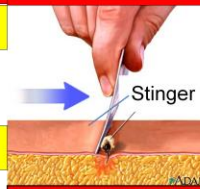
Apply cool wet towels

4 oz water every
15 minutes



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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



Check Airway & Breathing.

Help victim find & administer **Epi-pen**



Treat for Shock

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

- | | | |
|---------------------------|--------------------------|---------------------------|
| 1. Gather Facts | 4. Assess Your Situation | 7. Develop Plan of Action |
| 2. Assess Damage | 5. Establish Priorities | 8. Take Action |
| 3. Consider Probabilities | 6. Make Decisions | 9. Evaluate Progress |

Time & Weekday	Type of Building & Terrain	Occupancy	Weather	Hazards in Area
Light Damage <ul style="list-style-type: none"> Superficial damage, cracks in wall surface Minor damage to interior Moderate Damage <ul style="list-style-type: none"> Visible signs of damage Deco work damaged Visible cracks in wall Major damage to interior contents Building on foundation 	MISSION		Heavy Damage <ul style="list-style-type: none"> Partial/total collapse Tilting Structural instability Bldg off its foundation Heavy smoke or fire Hazardous materials Gas leaks Rising or moving water 	Do Not Enter
	Triage			Treat 3 Killers
	Evacuate Victims			Secure Building Perimeter
	Warn Others			Warn Others of Danger
	Document			

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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

20

Specific Safety Considerations

Buddy System	Hazards Alert	Safety Equipment	Backup Teams
Conducting Interior Search		Exterior Search	
Search Markings		Systematic Search	
<p>Upon Entering</p> <p>Slash CERT ID Date Time</p> <p>Upon Exiting</p> <p>Slash Areas Searched + Specifics</p> <p>© Hurricane Utah CERT</p>		<ol style="list-style-type: none"> Call out to victims. to come to your voice & get info about the bldg & victims Use a systematic pattern. Bottom-up/Top-down Right wall/Left wall Stop frequently to listen. Triangulate: 3 rescuers, guided by victim sounds, form a triangle around area & direct flashlights into area to eliminate shadows that could hide victim. Report results 	
		<ul style="list-style-type: none"> Authorities brief the searchers on what they are looking for. Area to be searched is viewed as a grid. 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			
<p>"V" Void</p>	<p>LEAN-TO Void</p>	<p>PANCAKE Void</p>	