

**BY ORDER OF THE COMMANDER
ELLSWORTH AFB**

ELLSWORTH AFB INSTRUCTION 48-151

15 MARCH 2010

Aerospace Medicine

THERMAL INJURY PREVENTION



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 28 MDOS/SGPB
Supersedes: EAFBI 48-151, 9 May 2007

Certified by: 28 MDG/CC
Col Robert G. Ritter
Pages: 14

This instruction implements Air Force Policy Directive (AFPD) 48-1, *Aerospace Medicine Program*, and Air Force Pamphlet (AFPAM) 48-151, *Thermal Injury*. This instruction establishes Ellsworth Air Force Base (EAFB) responsibilities and procedures to prevent the adverse effects of thermal stress and applies to all personnel assigned to EAFB and all tenant units. It does not apply to contractor personnel or personnel on off-duty time using areas such as the fitness center or golf course. It establishes policies and rules for non-flying operations during periods of extremely hot and cold weather. It establishes Wet Bulb Globe Temperature (WBGT) monitoring and reporting procedures, heat stress conditions and notifications, cold stress conditions and notifications, clothing and hydration requirements, and work/rest cycles. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/>. Send comments and suggested changes to this supplement through channels, using AF Form 847, *Recommendation for Change of Publication*, to 28 MDOS/SGPB, Ellsworth AFB SD 57706.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed. Changes consist of updated Office of Primary Responsibilities (OPR), internet website locations, and electronic notification information. Air Force Reserve Officer Training Corps requirements have been deleted.

1. General. During mission essential, contingency, or emergency operations, commanders, upon receiving counsel from 28 MDOS/SGPB, may waive the provisions of this instruction; however, when commanders waive procedures they must ensure all supervisors exercise caution, make certain all subordinate personnel are aware of heat and cold injury symptoms, and take actions to protect the health of their personnel. **Tables A3.1, A3.2, and A4.2** are the recommended work activity restrictions based on climatic conditions for this geographical area.

2. Responsibilities

2.1. 28th Bomb Wing Commander will:

2.1.1. Enforce base and tenant-wide participation in this program to ensure the health and safety of all personnel on EAFB.

2.1.2. Have final authority over outdoor activities that are required during national emergencies, peacetime contingencies, and other critical missions during extreme thermal conditions.

2.2. 28th Medical Operations Squadron Bioenvironmental Engineering (28 MDOS/SGPB) will:

2.2.1. Be the OPR concerning the thermal stress program for the installation.

2.2.2. Use the WBGT to measure the heat stress potential throughout the summer months. Each time the Heat Stress Condition changes, a new Heat Stress Advisory will be issued IAW paragraph 3.2.

2.2.3. Obtain temperatures and wind speeds from the 28th Operation Support Squadron Weather Flight (28 OSS/OSW) to determine the equivalent chill temperature and Cold Stress Condition throughout the winter months. Each time the Cold Stress Condition changes, a new Cold Stress Advisory will be issued IAW paragraph 3.3.

2.2.4. Upon request, during non-routine activities (i.e., change of command ceremonies, parades, and readiness exercises) 28 MDOS/SGPB will monitor localized WBGT at site of non-routine activities and determine the Heat Stress Condition.

2.2.5. Ensure thermal stress readings and guidance are available 8 hours a day during the duty week, and as needed in support of after hours and weekend operations/exercises at the request of unit commanders.

2.2.6. Call the 28th Bomb Wing Command Post (28 BW/CP) with the current WBGT reading and thermals stress condition so they can prepare and forward advisory messages to the entire base.

2.2.7. Ensure all work centers that are affected by thermal stress include training in their job safety training outline. Classify all industrial shops as being high, medium, or low risk of thermal stress. Conduct health risk assessments in workplaces as needed.

2.2.8. Investigate all thermal stress illnesses documented on AF IMT 190, *Occupational Illness/Injury Report*.

2.2.9. Develop an office operating instruction detailing procedures for determining WBGT measurements and heat/cold stress conditions.

2.2.10. During normal duty hours, all related questions/concerns will be directed to 28 MDOS/SGPB and the web site. After duty hours, emergency thermal stress items will be directed to the web site or the 28 MDOS/SGPB technician on-call via the 28 BW/CP at 385-3800.

2.3. 28th Medical Operations Squadron Public Health (28 MDOS/SGPM) will:

2.3.1. Provide thermal stress education guidance to work centers and supervisors as needed.

2.3.2. Track and evaluate all thermal stress illnesses and determine any trends and the need for an AF IMT 190, *Occupational Illness/Injury Report*.

2.4. 28th Medical Operations Squadron Aerospace Medicine will:

2.4.1. Notify 28 MDOS/SGPM of any heat or cold stress disorder associated with work or training activities.

2.4.2. Establish any recommendations or restrictions that may be necessary for workers who have been become ill due to a heat or cold stress disorder.

2.5. Occupational Health Working Group will:

2.5.1. Collect and analyze heat and cold illness data and use the data to help reduce future heat and cold illness rates.

2.5.2. Educate and advise commanders and supervisors on implementation of prevention techniques as needed.

2.5.3. Review the overall program at least annually to determine its adequacy.

2.6. 28 OSS/OSW will: Monitor temperature and wind speed information and update the current weather information on their web site.

2.7. 28 BW/CP will:

2.7.1. Send e-mail notification and pop-up alert, once informed by 28 MDOS/SGPB, to the entire base when the Heat/Cold Stress Condition categories change. Heat stress messages will include the current Heat Stress Condition, and the heat stress guidelines in Attachment 3 of this instruction. Cold stress messages will include the current Cold Stress Condition and cold stress guidelines in Attachment 4 of this instruction.

2.7.2. Phone 28th Maintenance Operations Squadron Maintenance Operations Center (28 MOS/MXOO) to inform them of thermal stress advisories.

2.8. 28 MOS/MXOO will: Notify flight line personnel via radio when heat/cold stress condition categories change.

2.9. 28th Civil Engineer Squadron Fire Department will: Add 10 degrees to the reported WBGT and determine the heat stress condition for personnel wearing firefighting gear and take appropriate actions.

2.10. 28th Security Forces Squadron Force Support Superintendent will: Add 5 degrees to the reported WBGT and determine the heat stress condition for personnel wearing body armor and take appropriate actions.

2.11. **Ellsworth Bellamy Fitness Center staff will:** Post the current heat/cold stress condition in a highly visible location near the main entrance to the Bellamy Fitness Center. Copies of the heat/cold stress precautions charts will also be posted near the main and side entranceways.

2.12. **Group and Squadron Commanders will:**

2.12.1. Ensure proper dissemination of the Heat/Cold Stress Advisories throughout their respective organization.

2.12.2. Ensure work center supervisors comply with this program to ensure the health and safety of their workers.

2.12.3. The Squadron Commander will determine which tasks are mission critical.

2.13. **Work Center Supervisors will:**

2.13.1. Ensure workers are trained on heat/cold stress prevention, recognition of thermal stress disorders, and first aid treatments. Document the training on AF Form 55, *Employee Safety and Health Record*, or on other approved training documentation form. Training is required upon assignment and annually thereafter.

2.13.2. Routinely retrieve heat/cold stress conditions and implement thermal stress safety procedures accordingly. Work center supervisors may have to adjust the work rest cycles for operations that require heavy personal protective equipment.

2.13.3. Ensure personnel working outside in hot environments increase their fluid intake, implement appropriate work-rest cycles, and use the buddy system. (Reference the Work/Rest Cycle in [Attachment 3](#).)

2.13.4. Ensure personnel working outside in cold environments are properly clothed, and implement appropriate breaks from the cold environment. (Reference the Wind Chill Chart and the Work/Warming Cycle in [Attachment 4](#).)

2.13.5. Monitor workers for signs of heat/cold stress and intervene when appropriate. Report all thermal stress illnesses/injuries to 28 MDOS/SGPM.

2.14. **Work Center Personnel will:**

2.14.1. Understand the signs and symptoms of thermal stress, and the first aid treatments. Take protective measures to prevent adverse health effects.

2.14.2. Report all thermal stress illnesses/injuries to the work center supervisor.

3. Procedures:

3.1. **Heat Stress:**

3.1.1. 28 MDOS/SGPB will monitor the heat stress index daily during the summer months. The summer monitoring period will begin around Memorial Day and end around Labor Day. (The summer monitoring period may be increased or decreased based on seasonal variations.)

3.1.2. When the outside temperature reaches 80°F, 28 MDOS/SGPB will perform heat stress monitoring every 2 hours during normal duty hours.

3.1.3. When the WBGT reaches 85°F, 28 MDOS/SGPB will initiate heat stress monitoring hourly during normal duty hours.

3.1.4. Measurement of WBGT Index and associated calculation will be made IAW 28 MDOS/SGPB Operating Instruction 48-151.

3.1.5. Heat Stress Advisories will be disseminated every time the WBGT Index changes IAW [Attachment 3](#).

3.1.6. 28 MDOS/SGPB will notify the 28 BW/CP by phone at 385-3800 to issue a Heat Stress Advisory.

3.1.7. 28 MDOS/SGPB will update the heat stress condition listed on the EAFB Community of Practice (CoP) website.

3.1.8. 28 BW/CP will send out a mass e-mail and electronic pop-up notifying base personnel of Heat Stress Advisories and associated precautions.

3.1.9. During duty hours, direct questions to 28 MDOS/SGPB at 385-3172. After duty hours, emergency heat stress items will be directed to 28 MDOS/SGPB technician on-call via 28 BW/CP at 385-3800.

3.1.10. Guidelines for Occupational Heat Exposures:

3.1.10.1. Supervisors of occupationally exposed personnel will use [Tables A3.1 and A3.2](#) to plan work and rest cycles for individuals under their control. When the WBGT index reaches the temperatures shown in the attachment for the category of workload, supervisors will initiate the appropriate work rest regimen and ensure the proper water intake.

3.1.10.2 Heat Stress Conditions provide guidance to workplace supervisors in order to reduce heat stress injuries. The WBGT Index should not be used directly for operations requiring heavy personal protective equipment (PPE) or hot indoor operations. Use correction factors for PPE from [Attachment 3](#).

3.1.10.3. Exposures above 90° F WBGT should be allowed only when performing mission essential duties and only then with caution.

3.1.10.4. When necessary to accomplish a task, two or more details should be arranged to work in sequence to ensure each crew receives the proper work and rest cycle.

3.2. Cold Stress:

3.2.1. 28 OSS/OSW will monitor temperature and wind speed information and update the current weather information on their web site.

3.2.2. 28 MDOS/SGPB will monitor cold stress routinely during the winter months. The winter monitoring period will typically begin around Thanksgiving and end around the first of March. (The winter monitoring period may be increased or decreased based on seasonal variations.)

3.2.3. When predicted or forecasted temperatures fall to 30°F, 28 MDOS/SGPB will gather information every two hours during the duty day from 28 OSS/OSW and update the cold stress condition and equivalent chill temperature (ECT) on the EAFB CoP.

- 3.2.4. 28 BW/CP will be notified by phone at 385-3800 to issue a Cold Stress Advisory.
- 3.2.5. 28 BW/CP will send out a mass e-mail and electronic pop-up notifying base personnel of Cold Stress Advisories and associated precautions
- 3.2.6. During duty hours, direct questions to 28 MDOS/ SGPB or web site. After duty hours, emergency cold stress items will be directed to 28 MDOS/ SGPB technician on-call via 28 BW/CP at 385-3800.
- 3.2.7. Guidelines for Occupational Cold Exposures:
- 3.2.7.1. Supervisors of occupationally exposed personnel will use **Tables A4.1 and A4.2** to plan work/warming cycles for their personnel and implement cold weather precautions. Supervisors will ensure proper cold weather gear is available and is utilized by personnel.
 - 3.2.7.2. Exposures below -45 F ECT should be allowed only when performing mission critical duties.
 - 3.2.7.3. When necessary to accomplish a task, two or more details should be arranged to work in sequence to ensure each crew receives the proper work/warming cycle and use the buddy system.
- 3.3. When notified of any thermal stress conditions listed in **Table A3.1 or Table A4.2**, the 28 BW/CP will immediately disseminate a Thermal Stress Advisory. Personnel operating outside the thermal stress restrictions may only do so at the direction of the Unit Commander or his/her representative. Thermal stress warning conditions remain unchanged.
- 3.4. Contact 28 MDOS/ SGPB at 385-3172 for any thermal stress questions.

JEFFREY B. TALIAFERRO, Colonel, USAF
Commander, 28th Bomb Wing

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

Threshold Limit Values For Chemical Substance and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (2006).

AFPAM 48-151, *Thermal Injury*

AFPD 48-1, *Aerospace Medicine Program*

28 MDOS/SGPBI 48-151, *Thermal Injury Prevention*

Abbreviations and Acronyms

OPR—Office of Primary Responsibility

EAFB— Ellsworth Air Force Base

WBGT—Wet Bulb Globe Temperature

MDOS/SGPB—28th Medical Operations Squadron Bioenvironmental Engineering

OSS/OSW—28th Operation Support Squadron Weather Flight

BW/CP—28th Bomb Wing Command Post

MDOS/SGPM—28th Medical Operations Squadron Public Health

MOS/MXOO—28th Maintenance Operations Squadron Maintenance Operations Center

CoP— Community of Practice

ECT—equivalent chill temperature

Terms:

Acclimatization—. Period of adjustment individual's body requires becoming accustomed to working in hot environments. Full acclimatization occurs through progressive degrees of heat exposure and physical exertion. Personnel may need two weeks of increasing exposure to become substantially acclimated and may retain most of their adaptation for one week after leaving hot climate. Workers in good physical condition acclimatize more quickly.

Buddy System. When implemented, two persons (minimum) must be present during the performance of each open—weather task. Each individual will monitor the other for symptoms of frostbite, hypothermia, or other cold-related injuries.

Wet Bulb Globe Temperature (WBGT)—. The WBGT index is a combination of temperature measurements, which consider dry air temperature, relative humidity, and radiant heating. The equation for the WBGT index uses dry bulb (DB) temperatures, natural wet bulb (NWB) temperatures, and globe (GT) temperatures. "Heat Stress Index" is synonymous with "WBGT Index."

Attachment 2

GUIDE TO DETERMINATION OF WORKLOAD

Table A2.1. Examples of Light, Moderate, and Heavy Work

Light Work (100-335 Watts)

- Repair work: automotive or aircraft
- Repair work: wiring and plumbing
- Light carpentry work (ie. standing using a table saw)
- Light gardening work (ie. lawn mowing using riding mower)
- Walking: on a hard surface at 3.5 mph with < 20 lb load
- Walking: on a hard surface at 2.5 mph with < 30 lb load
- Directing traffic
- Weapon maintenance
- Marksmanship training
- Drill and ceremony

Moderate Work (335-500 Watts)

- Repair work: involving painting, plastering, scraping
- Carpentry work requiring significant physical effort
- Light to moderate construction work
- Defensive fighting position construction
- Gardening work requiring significant physical effort (ie. lawn mowing using powered hand mower)
- Heavy cleaning requiring significant physical effort (ie. mopping and washing windows)
- Walking: on a hard surface at 3.5 mph with 20-40 lb load
- Walking: on a hard surface at 2.5 mph with 30-50 lb load
- Carrying a < 15 lb load up stairs
- Conditioning exercises: light or moderate effort (ie. calisthenics)

Heavy Work (500-700 Watts)

- Loading and unloading a truck
- Moving heavy objects < 75 lbs (ie. moving van work)
- Heavy construction work (ie. carrying bricks, pick and shovel work, digging)
- Gardening work requiring vigorous physical effort (ie. lawn mowing using non-powered hand mower)
- Walking: on a hard surface at 3.5 mph with > 40 lb load
 1. Walking: on a hard surface at 2.5 mph with > 50 lb load
 2. Carrying a > 15 lb load up stairs
 3. Conditioning exercises: vigorous effort (ie. push-ups, pull-ups, sit-ups)
 4. Running at >5 mph

Attachment 3

GUIDELINES FOR ACCLIMATIZED AND UNACCLIMATIZED PERSONNEL WEARING HOT WEATHER BDU

Table A3.1. Guidelines for Average Acclimatized Airmen Wearing BDU, Hot Weather.

Heat Stress Condition	WBGT ^{a,b} (F)	EASY WORK		MODERATE WORK		HARD WORK	
		Work Rest ^c Cycle	Water ^{d,e} Intake Qt/hr	Work Rest Cycle	Water Intake Qt/hr	Work Rest Cycle	Water Intake Qt/hr
1	78-81.9	No Limit	0.5	No Limit	0.75	40/20 min	0.75
2	82-84.9	No Limit	0.5	50/10 min	0.75	30/30 min	1.0
3	85-87.9	No Limit	0.75	40/20 min	0.75	30/30 min	1.0
4	88-89.9	No Limit	0.75	30/30 min	0.75	20/40 min	1.0
5	>90	50/10 min	1.0	20/40 min	1.0	10/50 min	1.0

Table A3.2. Guidelines for Average Unacclimatized Airmen Wearing BDU, Hot Weather.

Heat Stress Condition	WBGT (F)	EASY WORK		MODERATE WORK		HARD WORK	
		Work Rest Cycle	Water Intake Qt/hr	Work Rest Cycle	Water Intake Qt/hr	Work Rest Cycle	Water Intake Qt/hr
1	78-81.9	No Limit	0.5	50/10 min	0.75	30/30 min	0.75
2	82-84.9	No Limit	0.5	40/20 min	0.75	30/30 min	1.0
3	85-87.9	No Limit	0.75	30/30 min	0.75	20/40 min	1.0
4	88-89.9	No Limit	0.75	20/40 min	0.75	10/50 min	1.0
5	>90	40/20 min	1.0	10/50 min	1.0	Not allowed	Not applicable

- a. Add 5 degrees F to the WBGT if wearing **body armor** or **combat flak vest**.
- b. When performing work/exercise with **ground crew ensemble** or **fire-fighting gear**, 10 degrees F should be added to the measurement before using tables A3.1., A3.2., or A4.1.
- c. Rest means minimal physical activity, i.e. sitting or standing, accomplished in the shade if possible.

- d. For all three work rates, individual water requirement may vary by +/- 0.25 qt/hr.
- e. One quart is equal to one canteen.

Attachment 4

**WIND CHILL TEMPERATURE INDEX REFERENCE VALUES
AND ADVISORY COLD STRESS CONDITIONS**

Table A4.1. Equivalent Chill Temperature and Cold Stress Conditions.

WINDSPEED		TEMPERATURE (F)															
CALM	CALM	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	
KNOTS	MPH	EQUIVALENT CHILL TEMPERATURE															
4	5	26	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	
7 to 10	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	
11 to 15	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	
16 to 19	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	
20 to 23	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	
24 to 28	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	
29 to 32	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	
33 to 36	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	
37 to 41	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	
42 to 45	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	
46 to 50	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	
51 to 53	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	
		CAUTION								HAZARD							

Table A4.2. Working Practice Guidance in Cold Environment.

Cold Stress Condition	Temperature Range	Required Precautions and Hourly Work/Warming Cycle ^a
1	35 to 16 F ECT	Wear standard issue jacket and gloves, do not perform work for more than 60 minutes if not wearing cold weather gear.
2	15 to -4 F ECT	Follow Condition 1 precautions, no outdoor operations with water (vehicle/aircraft washing), wear gloves and total body protection (cold weather gear), avoid heavy sweating, change wet clothes immediately, Prevent dehydration – water intake: 4 qts/day (sedentary), 5-6 qts/day (active) 50 MINUTES WORK/ 10 MINUTES WARMING
3	-5 to -24 F ECT	Follow Condition 2 precautions, wear mittens not gloves if possible, increase layering of clothing, implement the ‘buddy’ system (two persons should be present during the performance of each open-weather task). 40 MINUTES WORK/20 MINUTES WARMING

4	-25 to -44 F ECT	Follow Condition 3 precautions. Cover all exposed skin. Limit outdoor work to mission essential duties only. 30 MINUTES WORK/30 MINUTES WARMING
5	-45 F ECT and lower	MISSION CRITICAL TASKS ONLY^b

- a. Warming must be in an indoor, heated environment.
- b. The Squadron Commander will determine which tasks are mission critical.

Attachment 5

HEAT AND COLD STRESS DISORDERS, WARNING SIGNS AND FIRST AID TREATMENTS

Table A5.1. Heat Stress Disorders.

Disorder	Signs and Symptoms	First Aid
Sunburn	Red, painful skin.	Apply cool baths or cool compresses for 10 to 15 minutes several times a day. Apply sunburn relief lotion to skin.
Heat Syncope	Fainting when standing erect and immobile in hot conditions.	Remove to cool area. Allow to recline and provide cool water. Recovery will be prompt and complete.
Heat Cramps	Active sweating, muscle cramps. Spasms, usually in the muscles or arms.	Stop all activity and sit in coolest available place. Drink cool water. Massage extremities. Seek medical attention if cramps persist for over one hour.
Heat Exhaustion	Profuse sweating or moist, cool skin. Cramps in abdomen or limbs. Pale face. Dizziness, faintness, weakness, nausea or vomiting. Weak pulse. Normal body temperature.	Treat for shock. Lay person down in cool area and elevate feet. Loosen clothing and cool body by sprinkling with cool water or fanning (not to the point of shivering). Give cool water to drink when conscious. Contact medical facility.
Heat Stroke	Headache, dizziness, red face/skin. Hot, dry skin (no sweating), and strong, rapid pulse. High body temperature.	THIS IS A MEDICAL EMERGENCY. Call 911. Treat for shock. Lay person down in cool area. Loosen clothing and cool body by sprinkling with cool water or fanning (not to the point of shivering). Give cool water to drink when conscious – add two teaspoons of salt to one canteen if available. If muscle twitching or vomiting occur, protect victim from injury and keep airway open by turning them on their side.
Hyponatremia	This condition can be caused by excessive water intake. Confusion, fatigue, muscle cramps, and nausea early on followed later by vomiting, seizures, unconsciousness, and/or death.	THIS IS A MEDICAL EMERGENCY. Call 911.

Table A5.2. Cold Stress Disorders.

Disorder	Signs and Symptoms	First Aid
Chilblain	It appears as red, swollen skin, which is tender, hot to the touch, and may	Move to warm place. Remove wet, constrictive clothing. Wash and dry

	itch. This can worsen to an aching, prickly (“pins and needles”) sensation, and then numbness.	injured area. Elevate injured area, cover with layers of loose, warm clothing and allow to rewarm (pain and blisters may develop).
Trench foot	The first sign is itching, numbness, or tingling pain. Later the feet may appear swollen, and the skin mildly red, blue, or black. Red or bluish blotches appear on the skin, sometimes with open weeping or bleeding.	DO NOT pop blisters, apply lotions or creams, massage, expose to heat, or allow personnel to walk on injury.
Frostbite	Skin will become numb and turn to a gray or waxy-white color. The area will be cold to the touch and may feel stiff or hard.	Move to warm place. Rewarm affected area in warm water for 15-30 minutes. (NOT HOT WATER). Cover with several layers of clothing. DO NOT rub affected area. Seek medical attention immediately.
Hypothermia	May be difficult to recognize in early stages. Things to watch for include unusually withdrawn or bizarre behavior, irritability, confusion, slowed or slurred speech, altered vision, uncoordinated movements, and unconsciousness. Body is cold under clothing. Even mild hypothermia can cause victims to make poor decisions or take inappropriate actions.	THIS IS A MEDICAL EMERGENCY. Call 911. Move to warm place. Get the victim off cold ground. Treat gently during evacuation, since function of the heart can be seriously impaired. Remove wet clothing. Put on warm clothes or wrap with dry blanket. DO NOT rub body parts. DO NOT give or consume alcohol.