

COLD WEATHER PREPAREDNESS



ASM GLOBAL – COLORADO CONVENTION CENTER
Revised: October 23, 2020

EFFECTS OF COLD ON THE BODY

REACTION TO COLD:

- BODY'S ENERGY IS USED TO KEEP INTERNAL TEMPERATURE
- BLOOD FLOW WILL SHIFT FROM EXTREMITIES TO THE CORE



COMMON COLD INDUCED PROBLEMS:

HYPOTHERMIA

FROSTBITE

TRENCH FOOT

COLD SHOCK



HYPOTHERMIA:

A background image of a snowy mountain landscape. The foreground is covered in snow with some rocks visible. In the middle ground, there are more rocks and a small stream or path. The background shows a rocky mountain peak under a clear blue sky.

MEANS "LOW HEAT"

OCCURS WHEN BODY HEAT IS LOST FASTER
THAN IT CAN BE REPLACED

SYMPTOMS BEGIN WHEN CORE
TEMPERATURE DROPS BELOW 98.6* TO
AROUND 95*



SYMPTOMS OF HYPOTHERMIA:

DROWSINESS, CONFUSION, WEAKNESS

PALE SKIN & UNCONTROLLED SHIVERING

VICTIMS LOSE THE ABILITY TO THINK OR MOVE –
MAY NOT EVEN KNOW THEY NEED HELP

BODY SLOWS, HEART RATE DIMINISHES – LEADS
TO CARDIAC ARREST

TREATMENT FOR HYPOTHERMIA:

MILD CASES:

- MOVE TO A WARM AREA – STAY ACTIVE
- REMOVE / REPLACE WET CLOTHING
- COVER HEAD, FINGERS & TOES
- GIVE WARM SUGAR WATER EVERY 15 MINUTES



TREATMENT FOR HYPOTHERMIA:

SEVERE CASES:

- CONTACT EMERGENCY PERSONNEL
- COVER ALL EXTREMITIES
- **DO NOT REWARM TOO QUICKLY!!**
- BEGIN CPR IF THE PERSON SHOWS NO SIGN OF LIFE



TREATMENT FOR HYPOTHERMIA:

DO NOT GIVE ALCOHOL!!!

ALCOHOL CAUSES BLOOD VESSELS
TO DILATE, BLOOD RUSHES TO YOUR
SKIN & BODY TEMPERATURE DROPS
RAPIDLY



FROSTBITE:



- OCCURS WHEN SKIN FREEZES & LOSES WATER
- SKIN BECOMES HARD & NUMB – TURNS BLACK
- AFFECTS FINGERS/HANDS, TOES/FEET, EARS & NOSE
- AMPUTATION MAY BE REQUIRED IN SERIOUS CASES
- WIND CHILL CAN ALLOW IT TO OCCUR EVEN IN TEMPERATURES ABOVE FREEZING

TREATMENT FOR FROSTBITE:

- **DO NOT RUB AREA!!**
- MOVE TO A WARM AREA
- WRAP AREA IN SOFT CLOTH
- CONTACT EMERGENCY PERSONNEL



TRENCH FOOT:

- NAMED AFTER TRENCH WARFARE IN WWI
- CAUSED BY PROLONGED EXPOSURE OF FEET TO DAMP, COLD CONDITIONS
- DOES NOT NEED FREEZING TEMPERATURES – CAN OCCUR IN TEMPS AS HIGH AS 60*



TREATMENT FOR TRENCH FOOT:

- WRAP IN WARM DRY CLOTH BANDAGES
- AIR THE FEET REGULARLY
- KEEP FEET WARM AND DRY
- SEEK MEDICAL ASSISTANCE FOR ADVANCED CASES



COLD SHOCK:

COLD SHOCK IS THE RESPONSE OF THE BODY TO SUDDEN COLD, ESPECIALLY COLD WATER.

COLD SHOCK IS THE MOST COMMON CAUSE OF DEATH FROM IMMERSION IN VERY COLD WATER, SUCH AS FALLING THROUGH THIN ICE

ABILITY TO SAVE ONESELF DECLINES SUBSTANTIALLY AS THE BODY PROTECTIVELY CUTS OFF BLOOD FLOW TO NON-ESSENTIAL MUSCLES



TREATMENT FOR COLD SHOCK:

CONTACT EMERGENCY PERSONNEL

REMOVE WET CLOTHING

TREAT FOR HYPOTHERMIA, FROSTBITE, ETC. UNTIL EMERGENCY PERSONNEL ARRIVE

DO NOT RE-WARM THE PERSON TOO QUICKLY!!

PREVENTATIVE MEASURES:

- SCHEDULE HEAVIER WORK DURING WARMER PARTS OF THE DAY
- WORK IN PAIRS
- CONSUME WARM & HIGH CALORIE FOODS
- DRINK PLENTY OF LIQUIDS



PREVENTATIVE MEASURES:

- WEAR AT LEAST THREE LAYERS OF CLOTHING
- AVOID COTTON
- WEAR A HAT / GLOVES
- WEAR INSULATED BOOTS OR FOOTWEAR
- KEEP A CHANGE OF DRY CLOTHING



ADDITIONAL INFORMATION:

**COLD STRESS, OCCUPATIONAL HEALTH & SAFETY
ADMINISTRATION, SAFETY AND HEALTH GUIDES.**

<http://www.osha.gov/Publications/coldcard/coldcard.html>

