

Cold Weather Injuries 1





Hypothermia

Definition Of Hypothermia

- ◆ The Cooling Of The Core Or Internal Temperature To A Level At Which Normal Muscular And Brain Functions Are Impaired Or Reduced.

Causes Of Hypothermia

- ◆ Cold.
- ◆ Wind.
- ◆ Moisture.

Contributing Factors

- ◆ Wet Clothing.
- ◆ Fatigue.
- ◆ Anxiety.
- ◆ Illness Or Injury.
- ◆ Too Heavy A Load.

(cont)

- ◆ Inadequate Diet.
- ◆ Lack Of Water.
- ◆ Lack Of Forethought & Planning.
- ◆ Overestimation Of The Groups Ability.

Symptoms Of Hypothermia

- ◆ Sensation Of Chilliness, Skin Numbness, Minor Muscular Impairment, Shivering.
- ◆ Feeling Of Weakness, Muscle Unco-ordination, Slow Stumbling Pace, Mild Confusion.
- ◆ Stumbling & Falling, Slow Thought & Speech.

(cont)

- ◆ Cessation Of Shivering, Inability To Walk Or Stand, Incoherence & Irrationality.
- ◆ Semi Consciousness, Dilation Of Pupils, Weak Heart Beat & Pulse.
- ◆ Unconsciousness; Death Due To Heart Stoppage.

Treatment

- ◆ Early Recognition Is Important.
- ◆ Stop, Provide Shelter.
- ◆ Put On Dry Clothes.
- ◆ Put Into Sleeping Bag, Remember To Insulate From The Ground.
- ◆ Ensure Head Hands & Feet Are Covered.
- ◆ Give Warm Drinks.
- ◆ On Recovery Treat As A Stretcher Case.

Prevention

- ◆ Understand Exposure & Its Symptoms.
- ◆ Carry Correct Equipment.
- ◆ Obey M & CWW Safety Rules.
- ◆ Eat & Drink Sufficiently.
- ◆ Dress In Accordance With Temperature & Weather.
- ◆ Understand The Wind-chill Factor.



A photograph showing a person's hands with severe frostbite damage. The fingers are blackened and necrotic, with visible redness and swelling on the palms. The word "Questions?" is overlaid in red text across the center of the image.

Questions?

Frostbite



Definition Of Frostbite

- ◆ Frostbite Is The Freezing Or Partial Freezing Of Parts Of The Body, Usually The Face And Extremities, The Hands And Feet.

Degrees Of Severity

- ◆ Frostnip.
- ◆ Superficial.
- ◆ Deep.

Frostnip

- ◆ A Temporary Condition. If Normal Colour & Sensations Return Within 30 Mins Of Re-warming Training May Continue.
- ◆ The Affected Part May Be Prone To Further Attacks.

Superficial

- ◆ Skin Tissue Is Affected, Blistering & Swelling May Occur, But A Full Recovery Is To Be Expected.

Deep

- ◆ Skin & Nerve Endings Seriously Affected In Severe Cases, Amputation Is Not Uncommon.

Causes Of Frostbite

- ◆ Cold Temperatures Cause Frostbite.
- ◆ Dangerous Combinations Are:
 - ◆ Cold.
 - ◆ Wind.
 - ◆ Moisture.
 - ◆ Restricted Circulation.

Symptoms Of Frostbite

- ◆ Cold & Pain.
- ◆ Skin Turns White.
- ◆ Insensitivity.
- ◆ Stiffness / Hardness Of Skin.





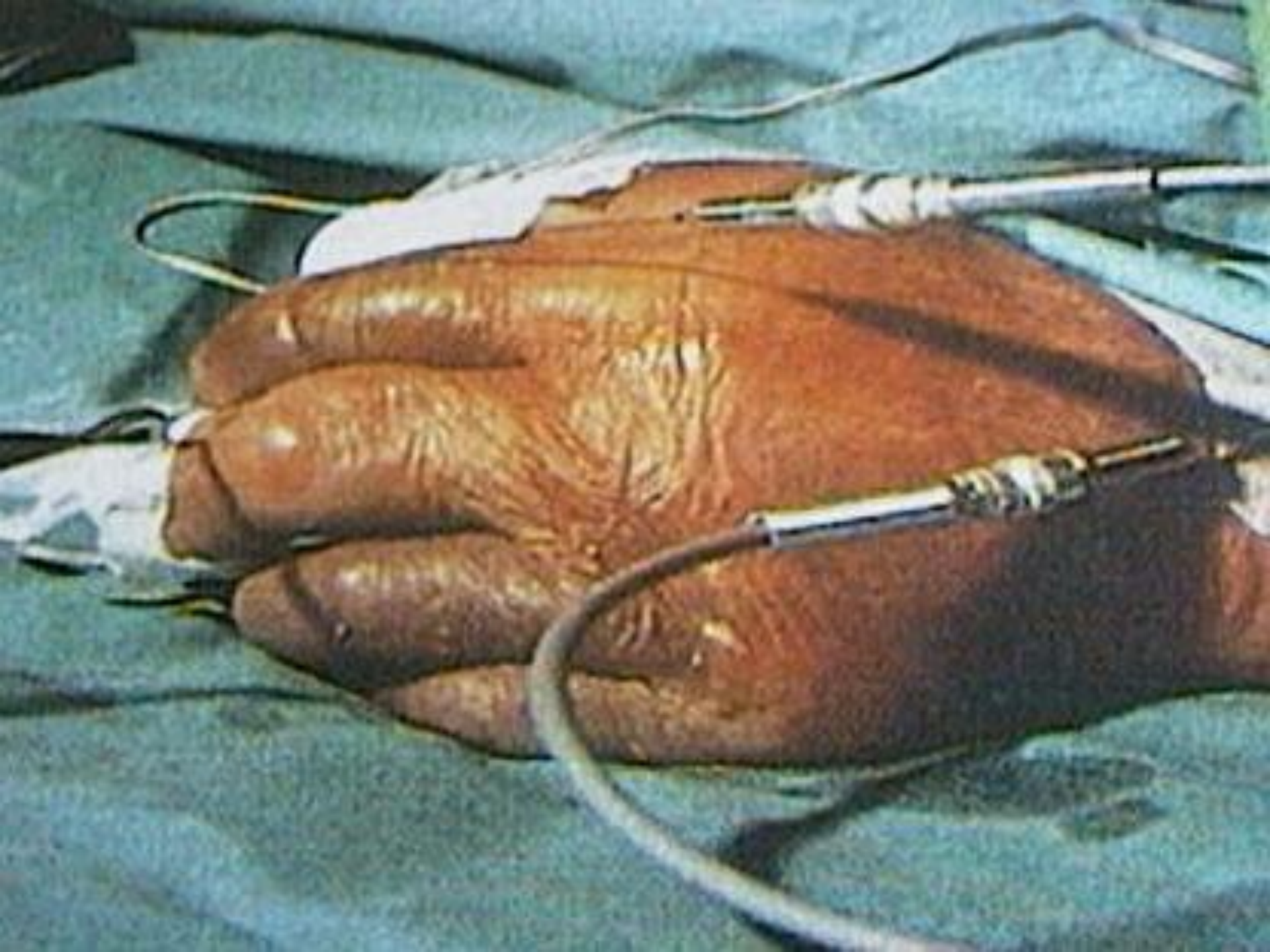


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Questions ?

Treatment Of Frostbite

- ◆ Seek Shelter Against Wind.
- ◆ Face - Place A Warm Hand, Mitten Or Similar On Frozen Part.
- ◆ Hands - Place Hands Under Your Clothes In Armpits Or Trouser Pocket.

(cont)

- ◆ Feet - When In Shelter Remove Boots & Socks & Place Against Warm Skin Of A Friend.
- ◆ Remember The Risk Of Frostbite Is Not Over Until The Affected Part Of The Body Has Regained Normal Colour & Sensitivity.

(cont)

- ◆ If Injuries Do Not Respond To This Then the Man Must Be Removed From The Field.
- ◆ Do Not :
- ◆ Rub The Affected Part.
- ◆ Use Ointment.
- ◆ Use Direct Heat.
- ◆ Give Alcohol.

Prevention

- ◆ Handle Equipment Correctly.
- ◆ Dress In Accordance With Weather.
- ◆ Exercise Face Fingers & Toes.
- ◆ Seek Shelter Before You Are Exhausted.
- ◆ Eat & Drink Well.
- ◆ Brush Snow From Clothing.

(cont)

- ◆ Keep Feet Clean & Dry.
- ◆ Carry Spare Socks & Gloves.
- ◆ Shave In The Evenings.
- ◆ Use The Buddy Buddy System.
- ◆ Understand The Wind-chill Factor.



Questions ?

Wind-chill Factor

- ◆ The Wind-chill Factor Is The Combination Of The Ambient Air Temperature And The Wind Speed Which Produces A Cooling Effect On The Body.



Windchill Chart

EQUIVALENT WINDCHILL TEMPERATURE CHART FOR USE IN COLD CATEGORY C1 INTERMEDIATE COLD							
Wind Speed		Dry Bulb Ambient Temperature °C					
Kmph	mph						
Still Air		-10	-15	-20	-25	-30	-35
8.0	5	-12	-17	-23	-28	-33	-38
16.1	10	-20	-26	-32	-38	-45	-51
24.1	15	-25	-32	-38	-45	-52	-58
32.2	20	-28	-35	-42	-50	-57	-64
40.2	25	-31	-38	-46	-53	-61	-68
48.3	30	-33	-40	-48	-56	-63	-71
56.3	35	-34	-42	-50	-57	-65	-73
64.4	40	-35	-43	-51	-59	-67	-75
72.5	45	-36	-44	-51	-60	-67	-75
80.5	50	-36	-44	-52	-60	-68	-76
Kmph	mph	INCREASING DANGER			GREAT DANGER		

Questions ?