**Putting the Chill on Frostbite & Cold-Related Injury**

Tourists and business travelers, especially those coming from temperate climates, are sometimes unaware of the dangers of cold weather. Travelers should be aware that preparation for frigid weather conditions is extremely important, and, with even a small amount of knowledge, travelers can avoid serious injury and even death.

The human body uses several mechanisms to cope with the cold, such as reducing the amount of blood flow in the skin and in the extremities of the limbs or shivering,” said Dr. Myles Druckman, Senior VP of Medical Services for International SOS. “Additionally, the rapid contraction of muscles under the skin increases heat production.”

Injuries can occur if the body or clothing is wet or if it is windy, even if outside temperatures are above freezing. There are two main forms of injury caused by prolonged exposure to cold climates--hypothermia and frostbite.

**Hypothermia**

Hypothermia is characterized by a significant drop in body temperature. The warning signs of hypothermia include shivering, confusion, memory loss, and drowsiness. Because of the dulling of mental functions, victims of hypothermia are sometimes unaware of their danger. If the body temperature of someone with these signs is less than 35°C (95°F), medical attention should be sought immediately.

**Frostbite**

With frostbite, a part of the body freezes and feels numb. No pain is felt until the frozen part thaws, when a hot, stinging sensation develops. Effects of frostbite are very similar to the effects of burns. Blisters may develop, and frostbitten areas may take several weeks to heal. Frostbite is more serious if entire fingers, arms or legs are frozen. In these cases, amputation may be required.

**Treatment**

Seek medical advice immediately. Victims of both hypothermia and frostbite should be moved to a protected area out of cold elements where wet clothing can be removed. They should then be warmed slowly with dry blankets and warm fluids that include plenty of sugar. No beverage containing alcohol should be administered under these conditions, because alcohol tends to amplify the adverse effects of cold temperatures.

**Prevention**

Prevention, however, is better than cure. Proper planning and taking notice of weather reports will prevent most cases of cold injury.

* Take along and wear warm clothing. Clothing worn in multiple layers is especially effective.
* Cover the head and shoulders, where more than half of the body’s heat escapes.
* Avoid tight-fitting clothing, especially tight gloves and shoes, which can cut off circulation.
* Wind-proof clothing reduces heat-loss. However, it is better to stay indoors if it is very windy or if the "wind chill" is low.
* Do not spend time outdoors in wet clothing. Replace wet clothing immediately with dry clothes.

“Do not drink alcoholic beverages,” said Druckman. “Contrary to popular belief, alcohol does not help. It may provide a feeling of temporary warmth, but alcohol actually increases blood flow to the arms and legs and increases heat loss.”

If planning a car trip in a very cold area, carry an emergency kit that includes warm clothes (maybe even a sleeping bag), boots, a shovel, a towrope and a candle. If your car breaks down, burning a candle inside can provide enough heat to keep you alive.

Most importantly, never venture into the cold unprepared. With good planning, winter holidays and business trips can be productive and enjoyed safely.

Disclaimer: This information has been developed for educational purposes only. It is not a substitute for professional medical advice. Should you have questions or concerns about any topic described here, please consult your healthcare professional.

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