

# Eskimos Overcame Frostbite; Women Played Major Role

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One of the major problems in man's existence down through time in the Arctic has been extremely cold temperatures. In meeting this great threat to themselves and the dire consequences that would result if no precautions were taken, the first unwritten law of Arctic people was to dress for cold weather. In doing so, there were, amazingly, few serious frostbite problems.

Minor frostbites were nuisances with which the ancient people had to control. Most of them, apparently, solved the minor frostbite problem satisfactorily and suffered little damage to tissues. Minor frostbites will be covered little more fully later in this article.

The ancient Arctic people, no doubt after finding that serious frostbites were a great threat to their existence, devised their clothing so that occurrences of this threat were kept at a minimum.

## Major Role

Women of the Arctic communities played a major role in prevention of major frostbites. They made the clothing and it was they who watched with thoroughness the condition of their husband's winter wear. The men demanded that their mukluks, parkas, gloves, mittens be kept in first-class condition, especially clothing worn on their extremities.

When the husbands came home after hunting out on the sea ice all day, the wives took careful inspection of their husbands' attire, especially their footgear. They looked for broken sinew threading around the oogrük skin soles and when they found, even a tiny hole, or rip, they sewed it up at once.

## Mended Quickly

When they found that the mukluk soles had worn thin, they sewed on round pieces of oogrük skin, either on the heel or on the ball of the foot. The patching was done carefully so that the needle did not go through the whole layer of the sole; that is, the needle and sinew had to be put through between the outer and inner layer of the oogrük skin. This was done to prevent leakage into the mukluks.

## Dried Thoroughly

When women found the mukluks were damp on the inside, they turned them inside out and put them to dry, up near the ceiling where there was much more heat. The drying of the inner side of the mukluks usually took about two to three hours after which they were turned right side out and allowed to dry thoroughly through the night.

Early the next morning the women took the mukluks, oiled them lightly with seal or whale oil and kneaded them as they became supple. When the soles dried stiff, a stout stick with a rounded end was applied and used to soften or knead the stiffened sole.

## Caribou Socks

The hunters wore caribou socks. These were needed because the men used waterproof footwear when hunting on the sea ice. This type of footwear was used even in the dead of winter because on young ice salty slush formed when sea water and snow mixed. (Salt water seeped through young ice and formed the slush.)

Caribou socks were definitely needed along with proper insoles. The length of hair on cari-

bou socks was usually three-quarter or an inch long. The hair was worn next to the skin. The thickness of hair on the sock was preferred at that precise thickness because it prevented bunching which was uncomfortable.

## Insoles

A simple set of insoles played a great role in the prevention of major frostbites on feet among the Arctic people. Care was taken in selection of the insoles.

Dried grass was used quite extensively and it worked well, but not to the full satisfaction of the hunters or whoever wore them. When the natives acquired hemp rope they unraveled the strands and used that. This worked well but it, also, was not too satisfactory.

Grass and hemp did not work too well because they tended to travel on the inner sole of the mukluk either to one side or the other and forward and back. This was due, quite reasonably, to smooth surfaces of those materials that made them tend to slip.

## Finest Insole

The finest insole material the old time natives on the coast found was root hairs they gathered on banks next to the ocean shore.

When the breakers were heavy the wash reached the banks and washed off the soil leaving root hairs exposed. When the breakers subsided these root hairs were dried by the wind and sun. Men, women, and children gathered them to use as insoles.

Root insoles were crinkly and had many branchlets so that when bunched they laid in all directions and in that way tended to adhere in a stationary position. When stepped on, or compressed, root insoles sprung back so that constant airspace was retained, making the insole a good insulating material.

On the other hand, grass and hemp tended to compress into a flat mass thus becoming conductor of cold temperature and transferring onto the sock and then to the feet. In very cold weather improper insulation of the insoles could be felt to an alarming degree. Therefore, proper insoles in mukluks were most necessary and they contributed greatly in preventing major frostbites.

## Hand Protection

Hand wear was of great importance also. The women made gloves out of very young caribou fawn skins. This material was soft and thin enough so that it did not impair the free use of the hands.

One type of glove that was used quite extensively was one with only the thumb and index finger in free use since these two digits were most actively used and the other three fingers were encased in a common enclosure. The natives found that common encasement of fingers was most advisable, outside of the thumb, so that the warmth of the hands can be retained in one space.

For full protection of the hands, the women made heavy mittens usually out of winter caribou leg skins into which the gloved hands could be encased. This type of hand protection against extreme cold was usually enough. In fact it was adequate and sufficient when hands were in active use or exercised during cold weather.

Having taken quite adequate precautions against major frostbites the next serious nuisance the northern people had to contend with were minor frostbites. These were frostbites on the

face, the cheeks, nose and the ears.

## Detection.

In extremely cold weather very great precaution and alertness was, and is, required. Upon exposure to below zero temperatures the face gets progressively colder during the time one is exposed to it. Under these conditions frostbite on the face area will sneak up on one. He should, as often as possible, feel his face to detect any frozen areas.

A bare hand pulled out of mittens should be used and with which the affected area should be warmed and thawed by alternating the hands in order not to expose the hands at too long a period at a time. This should be done by applying the palm of the hand without rubbing.

Another way to detect the affected area was to lightly grimace the face and by crinkling the nose. If one can feel tightness in these areas something is wrong and one had better take his hands and proceed to thaw out frozen areas.

Thawing out the frostbitten areas in this manner, especially if the area was bitten rather deeply, usually resulted in discoloration and peeling of the skin a couple of days later.

## Ancient Treatment

The ancient Eskimos had a way of avoiding the unsightly after-effects of frostbites on the face. There are some modern Eskimos who have known of this manner of preventing discoloration and peeling.

Upon detection of a frostbitten area on the cheeks or nose (ears were relatively minor problems because they were covered by the hood), the victim takes saliva out of his mouth which he spreads over and around the frozen spots. Mucous was preferred. The thicker it was the better.

If the reader tends to be squeamish about this method he should perhaps, think of the mouth-to-mouth resuscitation method now being commonly used as an accepted first aid procedure.

The ancient Eskimo contended that the application of mucous, or saliva, arrested the freezing action. He contended that mucous had much lower freezing point and when applied on and around the affected area, the unaffected area having circulation and, therefore warmth, helped the mucous to retain its warmth.

## Thawed Internally

The next procedure was to keep mucous application out of the wind and to add more saliva every few minutes for more warmth until the affected area was thawed.

The theory of the ancient Eskimo was, that the frozen area should be thawed by internal heat of the body and in that way the tissues would not be injured and the affected area would be free from discoloration and peeling of the skin when thawed in that manner.

## Proper Clothing

And so, the ancient natives of the Arctic took extensive precautions against major frostbites and were uniquely successful in preventing them, knowing that serious frostbites would have been disastrous during their survival down through the ages.

They needed their hunters free of handicaps, as much as possible, so they could pursue their calling without too much hindrance from the menace of frostbite and which they found could be effectively prevented through the use of proper

clothing.

The women played a great role in the survival of man in the Arctic. Their careful watchfulness and maintenance of their

husbands' winter wear, their own wear and that of their children, contributed immeasurably in the success of man's existence in the north country.