

Egg Harbor Fire Department and First Responders Standard Operating Guidelines

SUBJECT: IMPALED VICTIM

SOG 832

PURPOSE: To provide comprehensive guideline for performing rescue operations involving impalement.

SCOPE: This policy shall apply to all members of the Egg Harbor Fire Department.

IMPALEMENT INJURY:

A puncture wound in which the object (wood, knife, concrete reinforcement rod, etc.) remains beneath the surface of the skin.

A) Possible Scenarios: Accidents which can result in an impaled victim include the following:

- Vehicle Accidents
- Construction Accidents
- Building Collapse
- Industrial Accidents

B) Medical Considerations: Impaled objects produce wounds, which can produce severe blood loss. However, the impaled object can act to control bleeding from damaged arteries, veins and organs.

Rescue personnel must maintain coordination with senior EMS responder concerning patient condition.

THE PATIENT'S IMMEDIATE NEEDS AND CONDITION DICTATE THE METHODS USED TO EXTRICATE.

In addition to local control of bleeding, three rules must be followed in treating a patient who has an impaled foreign object in his body.

- A) Do not remove the object. Its removal may cause severe hemorrhage or damage of nerves or muscles lying close to the object. Try to stop any bleeding from the entrance wound by direct pressure but avoid exerting any force on the impaled object itself or on tissue directly next to its cutting edge.
- B) Use a bulky dressing to stabilize the object. The impaled foreign object itself should be incorporated within the dressing so its motion after the bandage is applied is reduced.

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- C) Transport this patient promptly with the object still in place. Ordinarily, it will require an operation for its removal so the tissue immediately around the impaled object may be examined directly and treated if required.
- D) If we must shorten a very long impaled object to allow transportation of the patient, remember that even the slightest movement may cause severe pain, hemorrhage, or damage of the tissue around it. Before an object is cut off, it must be made quite secure and any motion transmitted to the patient must be minimal.

TACTICAL GUIDELINES:

- A) Establish and maintain tight control of the emergency upon arrival (including the removal of all unnecessary civilians and responders from the area).
- B) It is very important to provide emotional support to the victim, and keep reassuring them, that help is at hand. Departments who have experienced this type of rescue reported that many of the victims were conscious and aware of what was occurring around them. Usually, the mere presence of a concerned rescuer is comforting to a victim.
- C) If additional manpower is needed for support purposes; do not hesitate to call for Mutual Aid.
- D) A handline should be provided to prevent any spread of fire produced by tools used for cutting metal, and to cool metal parts.
- E) Support of the victim is of prime importance. In a construction accident the victim may be impaled several feet off the ground. This support must be maintained to prevent further injury from movement or shifting of his body.
- F) If fire-resistive blankets are not available, cover the victim with turnout coats. This will afford him protection from flying sparks produced by cutting tools.
- G) If available, use a torch to cut impaled metal objects because:
 - 1) It allows better control of the impaled object.
 - 2) It cuts faster than a power saw or sawsall.
 - 3) It is vibration free
 - 4) Noise levels produced by power saws, can severely affect the emotional state of the victim.
 - 5) It permits a small portion of the object be cut without endangering the victim.

(Tests conducted by the New York City Fire Department found that torch cuts can be made within inches of a person without seriously affecting them. Heat condition from the torch was not found to be a problem, because of the speed, with which the cut is made, and the size and density of the material.)

WARNING

On-scene patient care will likely involve the administration of oxygen. Cutting operations **MUST** be coordinated to prevent possible flash fire in an oxygen-enriched atmosphere. Use of Positive Pressure Ventilation can be used to reduce risks associated with this activity.

H) Hospital medical staff must be informed of the position of any special space needs, which may be required to support the impaled object or move the patient. Doorway, corridor, elevator width, etc., can become serious problems when moving this patient.

Reference: WNYF, fourth issue 1982, New York City Fire Department, New York, NY (pp. 10-14). It permits a small portion of the object be cut without endangering the victim.