



Job Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

## Topic 89: First Aid for Spinal Injuries

**Introduction:** The spine is the central support column for the body and the protective casing for the spinal cord. It is injury to this spinal cord, which is the pathway for signals to and from the brain to the rest of the body, which is the greatest threat to the victim. The bony spine can normally withstand forces up to 1,000 foot pounds, but high speed travel, contact sports, and falls can routinely exert forces well in excess of this amount on the spine. Various types of injuries can occur to the spine, including the following:

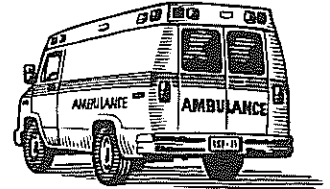
- \* Compression fractures which cause a flattening or crushing of the vertebra (bone segments that make up the spine).
- \* Fractures that produce small fragments of bone that may lie in the spinal canal near the cord.
- \* A partial dislocation of the vertebra from its normal alignment in the spinal column.
- \* Overstretching or tearing of the ligaments and muscles, producing an unstable relationship between the vertebrae.

**Spinal cord injuries** – Primary injury occurs at the time of impact or force application to the spine and may cause cord compression, direct cord injury (usually from sharp bony fragments), and/or interruption of the cord's blood supply. Secondary injury occurs after the initial trauma and can include swelling, loss of blood supply, or movement of bone fragments. Some symptoms resulting from spinal cord injury may be:

- Severe pain
- Loss of muscle function
- Loss of sensation (touch and temperature)



- Weakness or paralysis
- Complete lack of pain
- Loss of consciousness



### Assess the Situation:

- Put on any personal protection equipment which may be necessary for the situation, such as latex gloves for protection from blood born pathogens.
- Determine the cause of the injury and eliminate any hazards that may affect you as the first aid provider.
- If the victim is not in any immediate danger, *do not move them*.
- Treat life threatening situations first: severe bleeding, cardiac arrest, or if the victim has stopped breathing
- Do not become a victim *yourself*, leave rescue to trained personnel.

### Call for Help:

- If you are not alone send someone for help immediately.
- If you are alone treat life threatening injuries first, then go for help.



**Treatment for Spinal Injuries:** It is of vital importance in spinal injuries that the victim be restrained from movement which could further damage the spine, spinal cord, or tissue surrounding the spine. Do not move the victim unless it is absolutely necessary for treatment of life threatening injuries. The victim should be kept as comfortable as possible, without movement, until emergency medical technicians arrive. If movement of the victim is *absolutely necessary*:

- Immobilize the victim in a supine position (flat on their back) on a board, or rigid device long enough to support the entire body.
- The head, neck, torso, and pelvis should each be immobilized in an inline position to prevent further movement of the spine.
- Do not allow twisting of any part of the back, neck, or pelvis. Rotate all body parts simultaneously as the victim is placed on the board to maintain the spine in an inline position. Use blankets, pillows, etc. to support the victim's body to prevent movement.

**Conclusion:** The presence of spinal injury and the need to immobilize the victim can be indicated either by the method of injury, the presence of other injuries that could only have occurred with sudden violent forces acting on the body, or the specific symptoms of vertebral or spinal cord injury listed above. Damage to the bones of the spine is not always evident; if any question of spinal injury exists, treat as though the injury is known to exist. *Never attempt to exceed your training in first aid.*

### Work Site Review

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

### Employee Signatures:

*(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)*


City of San Angelo Foreman/Supervisor's Signature: \_\_\_\_\_

*These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*