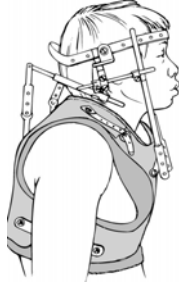


## Halo Fixator Vests A static traction device - allows for greater mobility

Used when the spine is stable.



Four pins (screws) are inserted into skull

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### PERFORMING ROUTINE CARE AND ASSESSMENTS FOR CLIENTS IN HALO VESTS

Halo tractors are frequently used for clients with scoliosis, cervical fractures and dislocations, vertebroto, and rheumatoid arthritis. A metal ring (the halo) surrounding the head attaches to the skull with four pins, each penetrating through the skin and into the skull approximately 20 mm (1/2 in.). The traction headpiece attaches to either a plaster or plastic vest to provide head and neck immobilization. The main advantage of halo tractors is the early mobility it allows, which reduces the potential for circulatory, respiratory, and neurologic complications.



1 Assess the client's respiratory status (see Chapter 6) at least every 4 hours to ensure that the lungs are clear and that the vest does not press on the diaphragm, compromising chest expansion. Pulmonary emboli can occur in clients with spinal cord injuries, yet some clients with neurologic impairment due to a cervical cord injury are unable to feel the pain associated with this disorder. Close assessment of these clients is especially critical. Keep an incentive spirometer at the bedside and instruct the client in its use. Note that an open-ended suction is taped to the client's vest. This ventech provides immediate release of the bolts to remove the vest in the event the client requires external cardiac compression.

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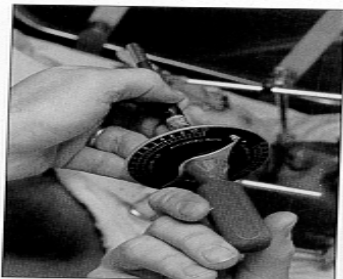
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2 In addition, a torque screwdriver should be kept available for the physician for tightening the pins to adjust the degree of tension on the anterior metal bars. The traction is correctly adjusted when there is neither flexion nor extension of the neck. The neck always should be kept in a neutral position.

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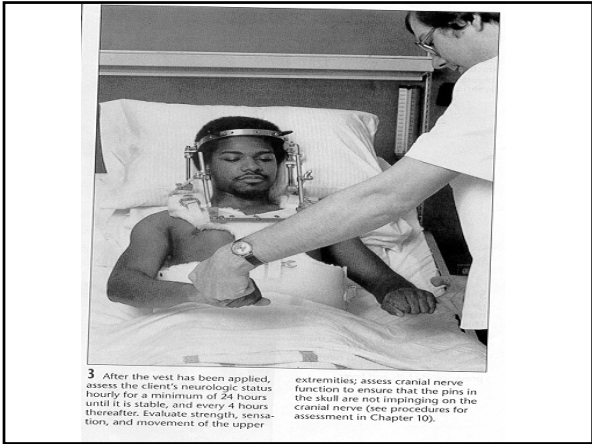
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**3** After the vest has been applied, assess the client's neurologic status hourly for a minimum of 24 hours until it is stable, and every 4 hours thereafter. Evaluate strength, sensation, and movement of the upper extremities; assess cranial nerve function to ensure that the pins in the skull are not impinging on the cranial nerve (see procedures for assessment in Chapter 10).

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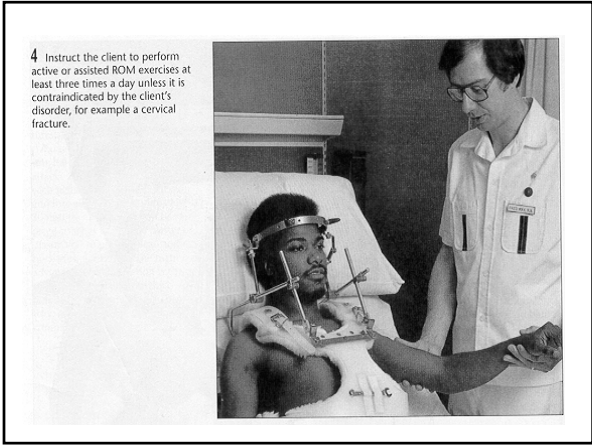
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**4** Instruct the client to perform active or assisted ROM exercises at least three times a day unless it is contraindicated by the client's disorder, for example a cervical fracture.

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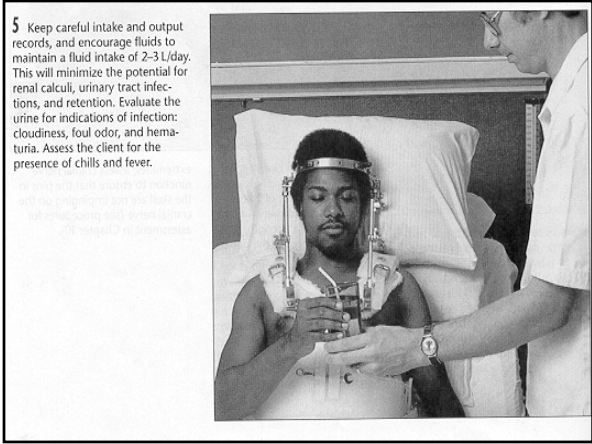
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**5** Keep careful intake and output records, and encourage fluids to maintain a fluid intake of 2-3 L/day. This will minimize the potential for renal calculi, urinary tract infections, and retention. Evaluate the urine for indications of infection: cloudiness, foul odor, and hematuria. Assess the client for the presence of chills and fever.

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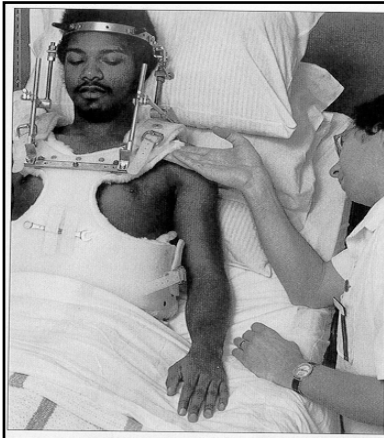
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**6** At least every 4 hours, inspect and massage the client's skin, especially around the vest edges. Skin irritation and pressure areas are a potential problem of wearing the vest. An air, eggcrate, or water mattress or a sheepskin pad should be used on the bed to help protect the client's skin.

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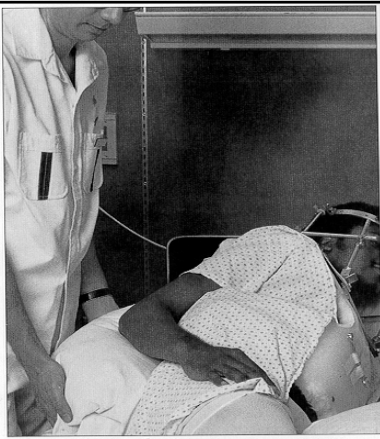
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**7** Assist the client with position changes every 2 hours to enhance circulation, prevent contractures, and maintain skin integrity. Follow the procedures in Chapter 2 for proper client positioning.



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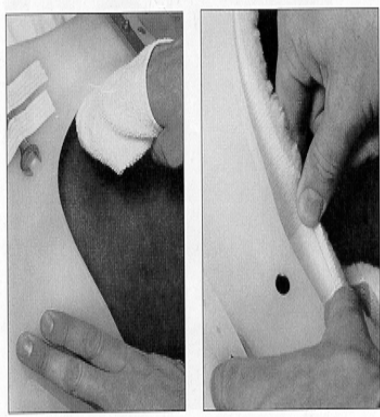
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**8** The sheepskin that lines the plastic vest should be removed at least weekly for washing and drying. Remove the sheepskin by detaching it from the Velcro™ strips that hold it in place (right). The client's skin should be bathed, rinsed, and dried daily. Specially trained personnel can open the vest at the sides for a more total cleansing and skin inspection.



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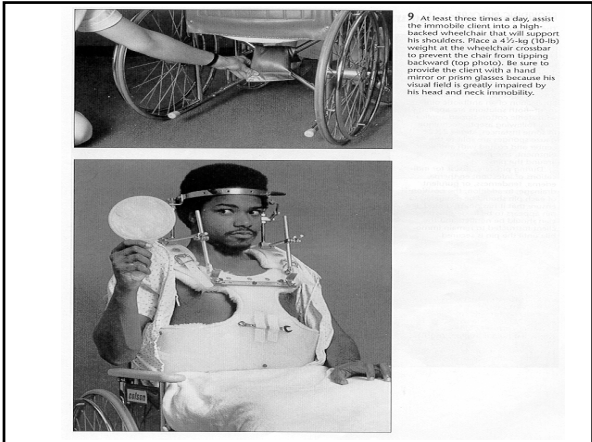
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### Immobilization: Cervical Injuries

- Placed in fixed skeletal traction.
- Most commonly used devices are Gardner-Wells, Barton, or Crutchfield tongs which must be used with a Stryker frame or kinetic treatment table to allow for re-positioning of the patient.
- Observe pin sites for any S/S of infection.
- Report to nurse changes in movement or decreased strength.
- See the following slides for types of devices.

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### Cervical Tongs- Crutchfield

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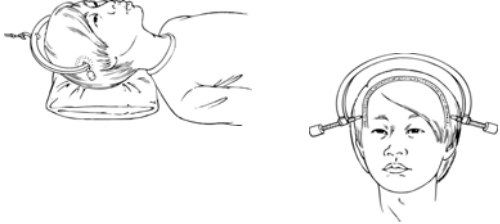
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Cervical Tongs- Gardner-Wells



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