

THORACIC LUMBAR SACRAL ORTHOSIS (TLSO)

- PURPOSE:** To outline the management patients with the TLSO.
- SUPPORTIVE DATA:** The TLSO is used to limit torso movement during the healing process for conditions such as injuries/fractures of the spine, scoliosis and post spinal surgery. The polymer orthosis (brace) produces total contact, meaning that it does not exert a single point of pressure. The orthosis controls motion in three planes of the thoracic lumbar sacral region.
- The TLSO brace is used as ordered by the provider. The brace is usually ordered to be used when the patient is sitting, standing or walking, but sometimes is ordered for when the patient is in bed.
- ASSESSMENT:**
1. Assess for the following a minimum of every 8 hours (every 4 hours ICU):
 - Respiratory distress
 - Chest pain
 - Tingling/numbness of extremities
 - Cracked or broken brace
 - Signs of pneumonia (e.g. coughing, fever)
 2. Assess for skin breakdown/pressure areas/irritation as follows:
 - A minimum of every 8 hours (every 4 hours ICU)
 - Each time the brace is removed
- CARE & MAINTENANCE:**
3. Ensure the brace is worn as ordered by the provider.
 4. If the patient is to wear the brace continuously while laying in bed, consult with provider as to whether or not the brace may be removed to inspect the skin for potential breakdown.
 5. Encourage patient to lay down in bed *without* the brace periodically throughout the day unless patient is ordered to wear the brace at all time.
 6. Ensure patient is wearing a t-shirt or hospital gown under the brace. For patients who must wear the brace while in bed, consult with the brace manufacturer orthotist.
 7. Ensure the brace is fitted correctly (see picture). Tighten/reapply brace as needed.
 8. Assist the patient with applying the brace (must be applied while patient is lying in bed).
 - Logroll patient to side (almost onto abdomen)
 - Align waist indentation of back of brace to between ribcage and hips, and then place back of brace on patient's back
 - Logroll patient to supine position
 - Place front of brace on patient
 - Tighten straps on both sides
 - Assist the patient with dropping legs over the side of the bed and pushing up to a seated position, then standing slowly.
 9. Assist the patient with repositioning/reapplying/removing the brace while lying in bed.
 - Place patient in supine position
 - Loosen straps
 - Remove front of brace
 - Logroll patient to side
 - Remove back of brace
- Note: If brace causes discomfort or pinching skin; may need to readjust with steps indicated #8 & #9
10. Ensure skin is clean and dry.
 11. Avoid lotions, creams and powders under the brace.
 12. Logroll a minimum of every two hours, assist if patient unable to do so (unless provider order indicates no turning).
- PATIENT CARETAKER:**
13. Instruct on the following:
 - Inform the nurse for:
 - Pain
 - Pinching of skin under the brace/discomfort caused by brace

- Tingling/numbness of extremities
- Respiratory distress
- Chest pain with or without coughing
- Redness/pain/irritation of the skin
- Not to bend or twist waist/spine
- Not to raise hands above the head
- Not to move in a way that causes discomfort due to the brace
- To ask for assistance with applying or removing brace, or getting out of bed
- To “logroll” when turning in bed

- COLLABORATION:
14. Collaborate with Physical Therapy as indicated.
 15. Collaborate with brace manufacturer orthotist:
 - If the patient is ordered to wear the brace while in bed
 - For persistent redness or discomfort
 - For brace that is not fitted properly

- REPORTABLE CONDITIONS:
16. Report the following to the provider and assist the patient back to bed to remove the brace:
 - Tingling/numbness of extremities
 - Respiratory distress
 - Chest pain
 - Redness persisting for more than 10 minutes
 - Pain/irritation of the skin unrelieved by repositioning/removing the brace
 - Discomfort/pain unrelieved by reapplying the brace
 - Cracked or broken brace

- DOCUMENTATION:
17. Document in accordance with documentation standards.
 18. Document in Systems Assessment Navigator band, Orthopedic Device/Immobilizer/Cast Info section.



PROPERLY FITTED TLSO

Initial date approved: 12/11	Reviewed and approved by: Professional Practice Committee Nurse Executive Committee Attending Staff Association Executive Committee	Revision Date: 11/15, 03/22
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