

Royal North Shore Hospital

Orthotics Department

Occupational Therapy Department

Physiotherapy Department

Acute Care



CTLISO: Guidelines

Patient and Carer Information Booklet

If you have any further questions regarding the content of this booklet please contact your:

Orthotist:	Phone 02 9463 2303
Occupational Therapist:	Phone 02 9462 9666
Physiotherapist:	Phone 02 9462 9747



Health
Northern Sydney
Local Health District

CTLSO (Cervical-Thoraco-Lumbo-Sacral Orthosis)

Purpose of the CTLSO:

The brace can be worn after spinal injury or surgery for the following reasons:

1. Immobilises your spine during healing
2. Restricts movement in injured areas
3. Controls pain by restricting movement

You need to wear the brace for as long as your consultant has instructed

Precautions:

Do NOT:

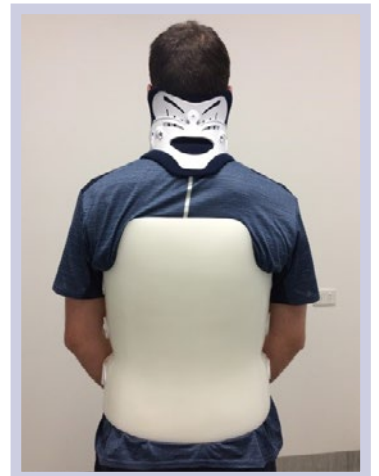
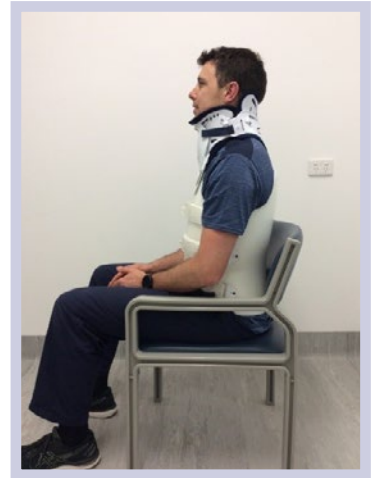
- Twist or bend your back
- Sit for longer than 30-40 minutes
- Lift objects that weigh greater than 2kgs or 4 pounds (e.g. 2L of milk)
- Pushing and pulling (e.g. pushing a shopping trolley)

Do:

- Sit in a firm, high chair with suitable back support

Sleeping:

- Do not wear the brace in bed. Wear the brace at all other times
- You should sleep on your back for the duration of brace use
- Log roll to reposition yourself in bed



Applying and removing your CTLSO in lying:

Your Physiotherapist and Orthotist will explain, demonstrate and practice how to take your CTLSO on and off. You will require assistance to take the brace on and off in lying.

To apply the brace:

1. Log roll onto your side
2. Place the back section on

Note: Use a scooping action, press down on the bed and push the back piece on. Make sure the brace is even.



Once in place, log roll to return to lying on your back.



Remove the front section of the collar.



Apply the front section of the CTLSO. The front section sits on the inside of the back piece.



Fasten Velcro straps, starting with the centre straps. Tighten straps evenly and firmly as tolerated. Then, fasten straps on collar section of brace, ensuring the front section fits inside the back.

To remove the brace:

1. Start by lying on your back
2. Undo all the Velcro straps. Fold the Velcro back on itself (to prepare it for future use). Remove front section of CTSLO
3. Apply front section of Miami J collar
4. Log roll onto your side
5. Your helper then removes the back section
6. Log roll to return to lying on your back

It is important to avoid twisting or bending your back and neck when putting the CTSLO on and taking it off.

Log rolling:

Your Physiotherapist will explain, demonstrate and practice the correct technique to log roll with the brace on while you are in hospital

To get out of bed when brace on:

- Bend outside knee
- Bring arms toward the edge of the bed
- Keep your hip and shoulders in line as you roll onto your side.
- Move your legs off the bed
- Push up with your arms to a sitting position

Keep your spine and neck straight and do not twist your body as you roll

To get into bed, reverse this process:

- Sit on the bed, with your bottom as far back as possible
- Lean to the side and lower your trunk to the bed
- Lift both legs off the floor onto the bed



- Roll over onto your back with both knees bent

Keep your spine and neck straight and do not twist your body as you roll

Pressure Injury Prevention

A pressure injury is an injury to the skin caused by unrelieved pressure and may occur when you are unable to move due to injury or surgery. They may develop under or around braces or from being in the same position for too long.

Signs of a pressure injury

- Redness / skin discoloration
- Blistering
- Broken skin

Reducing the risk of pressure injury

- Check your skin daily for red areas. It is easiest to do this straight after the brace is removed when lying in bed
- Change position regularly and do not wear the full CTLSO when resting in bed
- Do not wear CTLSO if it is wet
- Sponge wash or bed bathe every 1-2 days, using a 'skin friendly' cleanser and moisturiser if appropriate
- Change blue liners daily

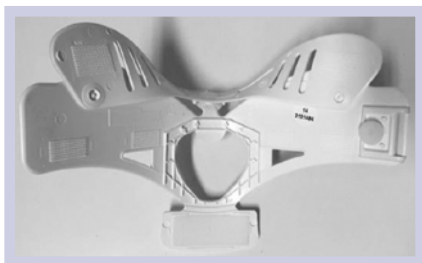
If the areas of redness do not go away and you have increasing discomfort please notify your Orthotist on (02) 9463 2303 to have your brace reviewed.

Changing the blue liners on the CTLSO

Liners should be changed and washed with warm soapy water daily (do not soak)

Lay liners flat to dry. Your Orthotist will provide a spare set of three blue liners to enable this

- To change, replace each piece of liner with the spare, one at a time (positioning is shown below). The shiny side faces up
- There should be 1cm of liner overhanging all edges of the plastic front and back panel. Change liners while lying down using the steps shown on page 3-4
- Ensure liners have dried completely prior to use to prevent pressure areas and other skin problems



Showering/Bathing:

You may either:

- Remove the CTLSO and have someone sponge bathe you while you lay flat

OR

- Shower with your brace on using a hand held shower hose. Do not get the collar section wet
- After showering remove brace as directed, dry and then reapply
- Shower at night before going to bed. The brace can then dry overnight

NB: It is important you do not bend or twist your back while the CTLSO brace is removed

DO NOT bathe in a bath tub

Your Occupational Therapist will assist in recommending appropriate assistive equipment for you.



Shower chair



Shower stool

Images courtesy of Independent Living Specialists

Toileting:

- The brace should remain on while toileting. To lower yourself, bend from your hips and knees. If you are having difficulties with standing from the toilet you may find assistive equipment such as an over toilet aid or toilet surround beneficial. Men may find it easier to use urinal bottles.
- If you are finding it difficult to wipe your bottom, you may find an extended handle bottom wiper helpful. Your Occupational Therapist can advise on techniques and equipment that can make toileting easier.



Over toilet aid



Urinal bottle



Bottom wiper

Images courtesy of Independent Living Specialists

Dressing:

Wear a well fitted cotton t-shirt under the brace. Application of clothing will become difficult as you will not be able to bend. Your Occupational Therapist can advise you on techniques to make dressing easier.

- Wear clothes with elastic (i.e. tracksuit pants)
- Ensure that pants are worn over the base of the brace
- If you wish, wear loose tops over the brace. Shirts with buttons are easier to apply
- Long handled reaching aid can help pull up pants and underpants
- Long handled shoe horn will assist with application of shoes
- Shoes without laces or elasticised laces will be easier to apply and remove



Images courtesy of Independent Living Specialists

Transport:

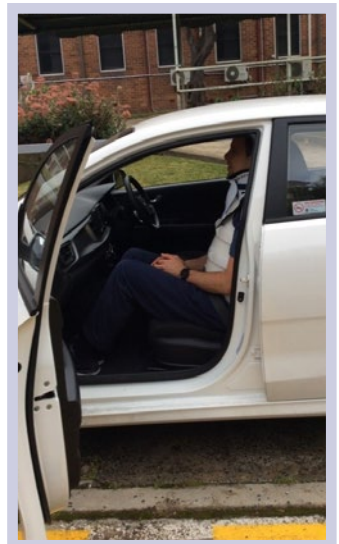
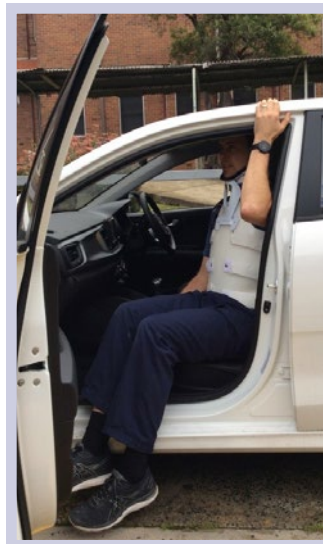
You are not allowed to drive for the duration of brace use

How to get into the car:

- Ensure the seat is pushed back and reclined
- Bend at your hips and knees, lower your bottom onto the seat
- Swing your legs into the car

Plan regular breaks if you are travelling for more than 30 minutes

NB: If you have queries with regard to returning to driving, please refer to the Ausroads Fitness to Drive Guidelines or ask your Occupational Therapist or consultant.



Lifting:

Discuss your maximum lifting tolerance with your consultant.

Avoid lifting items more than 2kgs. Have assistance with 'heavier' tasks such as:

- Shopping
- Carrying pots and pans and other kitchen appliances
- Vacuuming, mopping
- Laundry
- Gardening
- Child care

Tip: Break up groceries or laundry into smaller loads by taking more frequent trips

Work:

- Plan your return carefully: look at your job requirements and ask if there are lighter duties.
- Maintain all driving and lifting restrictions
- Set up your work place area to allow good posture and comfort
- Take regular breaks
- Talk to your Occupational Therapist for further discussion on returning to work

Sex:

Ask your consultant when you can return to sexual activity. Avoid postures that put strain on your neck and back. You may need to assume a more passive role for a time. If you have concerns or have increasing pain, ask your consultant.

Exercise:

The best exercise during your recovery is walking. Increase your distance daily as guided by your level of fatigue and your Physiotherapist.

Reviewing the CTLSO:

Adjustments are made by the Orthotists. Do not make any adjustments yourself.

Further Questions:

If you have any further questions, please ask your Orthotist, Occupational Therapist or Physiotherapist.

You can contact an Interpreter using the Translations Interpreter Service - TIS (free call) on 131 450.

Checklist of Education / Training Prior to Discharge

- I understand my movement precautions
- My carer and I both feel confident with applying and removing the brace in the correct manner
- I understand how to check for and prevent pressure areas
- I understand how to change and wash my liners
- I am able to get in and out of bed independently
- I understand how to shower, toilet and dress whilst requiring my brace
- I have arranged a review outpatient appointment with the Orthotics Department on (02) 9463 2303

Thank you to all participants who have allowed the use of their images in the production of this booklet

