

Royal North Shore Hospital

Orthotics Department

Occupational Therapy Department

Physiotherapy Department

Acute Care



Semi Rigid TLSO: 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

Semi Rigid TLSO (Thoraco-Lumbo-Sacral Orthosis)

Purpose of the TLSO Brace:

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

- Immobilises your spine during healing
- Restricts movement in injured areas
- Controls pain by restricting movement

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

The brace has two parts:

- A front piece with a pad across your upper chest
- A back vest with 2 straps at the shoulders, and 2 straps across the stomach

Do not adjust the brace yourself as your orthotist will have adjusted the brace to fit you.

Precautions:

Minimise these activities when wearing your brace:

- No twisting or bending of your back
- Sit in a firm, high chair with suitable back support
- Do not sit for longer than 30-40 minutes
- Do not lift objects that weigh greater than 2kgs or 4 pounds (e.g. 2L of milk)
- Pushing and pulling (e.g. pushing a shopping trolley)

Sleeping:

- Do not wear the brace in bed. Wear the brace at all other times
- Log roll to reposition yourself in bed



Putting Brace On and Off:

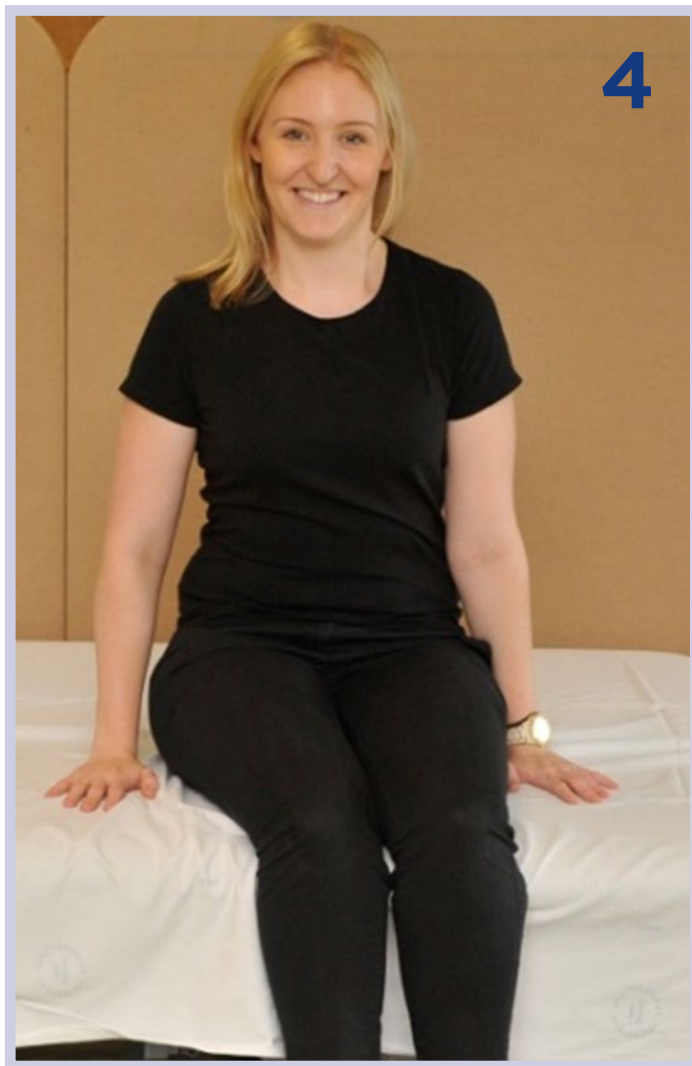
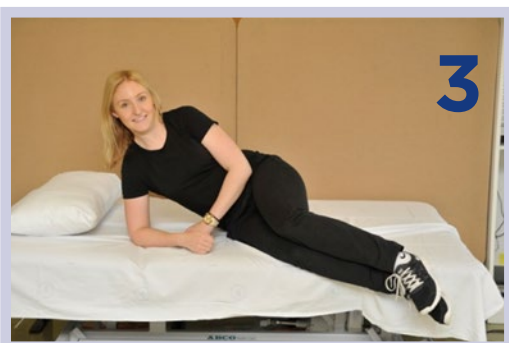
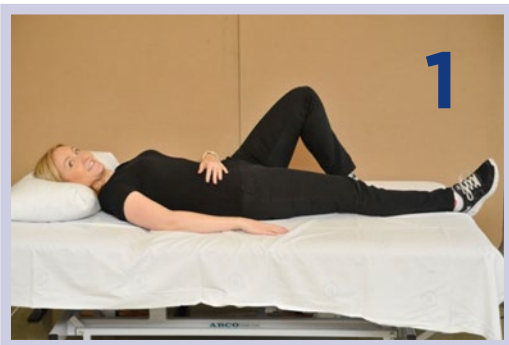
- Your Physiotherapist and Orthotist will explain, demonstrate and practice application of the brace while you are in hospital
- Depending on the severity of your injury, your Consultant will let you know if you can put the brace on in sitting or lying
- You should always wear a tight singlet/t-shirt underneath the brace

Getting in & out of Bed:

- Bend outside knee
- Bring arms toward the edge of the bed
- Keep your hip and shoulders in line as you roll onto your side.
- Drop your legs off the bed
- Push up with your arms to a sitting position
- Remember to 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
- Remember to keep your spine and neck straight and do not twist your body as you roll



In lying: (You will need assistance with this method)

- 1) Log-roll to one side of the bed
- 2) Have your assistant open up the vest and lie it against your back
- 3) Assistant pushes the side panel of the vest underneath you. This is done by pushing the panel firmly against the bed and sliding it through beneath the side you are lying on
- 4) Log-roll onto your back. (You may need to log-roll to the other side to ensure the brace is symmetrical)
- 5) Grasp both panels and secure them firmly around your waist. The 3 lines of Velcro should match up with each other
- 6) Assistant attaches the front of the brace so it attaches onto the three Velcro panels
- 7) Secure the 2 abdominal straps firmly - the firmer they are, the more support you will have
- 8) Loop each shoulder strap through the buckle extending from the chest bar and secure loosely

Note: the shoulder straps do not need to be secured firmly like the abdominal straps.



In sitting:

Please note you will require clearance by your consultant to put on the Semi-Rigid TLSO in a seated position

(Keep the brace near to avoid bending and twisting to reach it)

- 1) Place the vest so it is low and centred on your body. Wrap the vest around your waist and secure the Velcro as firmly as possible (the 3 lines of Velcro should match up with each other)
- 2) The bottom of the brace should touch your thighs
- 3) Place the front piece of the brace onto the vest so it attaches to the three Velcro panels
- 4) Loop each shoulder strap through the buckle extending from the chest bar. Secure the 2 abdominal straps firmly - the firmer they are, the more support you will have and will prevent your brace from riding up



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
- Tenderness, pain, or itching in affected areas
- 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
- Do not wear your TLSO if it is wet
- Keep your skin dry

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.

Showering/Bathing:

Your spinal brace is **not** waterproof:

- Your **consultant** determines if you can shower with your brace off. If you unsure it is best to be sponge-bathed in bed
- NB: It is important you do not bend or twist your back while the TLSO brace is removed. DO NOT bathe in a bath tub
- Your Occupational Therapist will assist in recommending appropriate assistive equipment for you

Toileting:

The brace should remain on while toileting. Bend at your hips and knees to sit on the toilet. 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

Dressing:

You are required to 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.

- 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
- Wear sensible flat-soled shoes with non-slip soles to decrease the risk of slips or trips



**Long handled
reacher**



**Long handled
shoe horn**

Images courtesy of Independent Living Specialists

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



2L Milk = 2kg

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

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: Refer to the Austroads Fitness to Drive guidelines or ask your Occupational Therapist or Consultant for further driving instructions.



Sex:

Ask your consultant when you can return to sexual activity. Avoid postures that put strain on your 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 physiotherapist and fatigue.

Brace adjustments:

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

Further Questions:

If you have any further questions regarding the content of this book, please discuss with 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 am able to get in and out of bed independently
- I understand how to toilet and dress whilst requiring my brace
- I understand my showering/bathing privileges as determined by doctor