

Day-to-day Tetraplegic Guide

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Potential Risks and Safety Consideration:

- **Reduced Awareness of Body Temperature**
I am unable to accurately sense water temperature, making it essential to carefully monitor the temperature when showering or washing to avoid burns or discomfort. And correct clothing choice depending on weather/temperature.
- **Reduced Sensation and Feeling**
I lack normal sensation below the chest, which means I may not feel injuries such as cuts, pressure sores, or burns. This increases the risk of unnoticed harm.
- **Spasms and Risk of Falls**
I am prone to spasms that can result in falls. If I fall out of bed or my wheelchair, I am unable to get up independently, call for help, or open doors.
- **Increased Risk of Fractures**
Due to my injury, I am more vulnerable to limb fractures, especially during spasms or falls.
- **Always make sure that catheter is not pulling.**

1. Morning routine

Time	Action	Level of assistance	Time taken
08:00	<ul style="list-style-type: none"> Wake up. Open blinds. Take head pillow. Take covers. Take all pillows off the bed. Insert suppositories (1 evaqu,1 Dulcolax). Detached catheter and empty bag (see section 8). Prepare shower chair and shower belt. Transfer to shower chair (see section 6). Put on shower belt. 	Assistance of two	25 minutes
08:25	<ul style="list-style-type: none"> Bowel program. Give medicine (baclofen). Manual check of bowels and clean (or leave for longer if bowel result not achieved). Eat breakfast. Brush teeth. 	Assistance of one	55 minutes
09:20	<ul style="list-style-type: none"> Shower: wash body and hair. Dry after shower. Put new towel on bed. Push back from bathroom to bedroom. Dry hair. 	Assistance of one	20 minutes
09:40	<ul style="list-style-type: none"> Transfer back onto bed (see section 6). Position in supine lying. Attach leg bag and open flip flow, disinfect suprapubic entrance (see section 8). Check that skin fully dry. Skin inspection for pressure areas. Apply body care products. Dress upper and lower body including shoes, socks and abdominal binder. Transfer to wheelchair (see section 6). Position correctly in wheelchair. 	Assistance of two	20 minutes
10:00	<ul style="list-style-type: none"> Fasten chest strap. 		

2. Typical day at home

Time	Action	Level of assistance	Time taken
10:00	<ul style="list-style-type: none"> Sit at computer desk. 	Assistance of one	1 hour
10:20	<ul style="list-style-type: none"> Perform hand mobilisation (see section 7). 		
11:20	<ul style="list-style-type: none"> Perform standing (see section 5). 	Assistance of Three	1.5 hours
13:00	<ul style="list-style-type: none"> Lunch at computer desk. 	Assistance of one	20 minutes
Undefined	<ul style="list-style-type: none"> Mixed afternoon between leisure activities, studying and therapy. 	Undefined	Undefined
18:00	<ul style="list-style-type: none"> Dinner. 	Assistance of one	20 minutes

3. Evening routine

Time	Action	Level of assistance	Time taken
20:00	<ul style="list-style-type: none"> Go to bedroom. Take upper clothes off (T-shirt, sweater and other items) in wheelchair. Wheelchair to bed transfer (see section 6). Undress on bed. Put on heel protectors. Remove leg bag and attach catheter to night bag. 	Assistance of two	20 minutes
20:20	<ul style="list-style-type: none"> Set up projector Leg Mobilisation (see section 7). 	Assistance of one	1 hour
21:20	<ul style="list-style-type: none"> After mobilisation position covers and pillows. Put bed in sitting position. Open the table and position the computer. 	Assistance of one	10 minutes
21:30	<ul style="list-style-type: none"> Personal hygiene: wash face and brush teeth. 		

4. Night routine

Time	Action	Level of assistance	Time taken
22:30	<ul style="list-style-type: none"> Give medications and tea. Prepare water bottle and attach it to the side. Take the computer and close table. Take covers and pillows. Turn on side (see section 7). Utilise any covers and pillows needed. Make sure catheter is an optimal position. Adjust water tube. 	Assistance of one	20 minutes
22:50	<ul style="list-style-type: none"> Close lights and make final adjustments to the room. 		
03:30	<ul style="list-style-type: none"> Middle of the night turning required. Turn on small light. Empty urine bag. Move water bottle. Turn on the other side (see section 7). 	Assistance of one	20 minutes
03:50	<ul style="list-style-type: none"> Give necessary cups of water. Close light. 		

5. Extra curriculum activities

Action	Level of assistance
<p>Swimming pool</p> <ul style="list-style-type: none"> Prepare swimming pool bag (see Section 10) Put swimming trunks during morning routine. Just before pool undress upper body including shoes and socks. To undress, lower body lean wheelchair back. Detach day-bag and put blue plug on tube exit. Wrap tube exit area, with the tube, with clear plastic foil. Transfer in pool (see section 6). After pool transfer on shower wheelchair (see section 6) Do a shower. Follow the same steps as morning routine after shower. 	Assistance of two
<p>Standing</p> <ul style="list-style-type: none"> Block wheelchair brakes and take-off belt. Lean forward individual and place standing belt under bottom. Move wheelchair to standing and position feet. Attach hooks on both sides of belt. Hold individual under armpits while holding arms (one person for each arm). With remote control lift individual and position pillows. 	

6. Transfer

<p>Lift transfer</p> <ul style="list-style-type: none"> • Position the sling (net) securely under the patient's body. • Bring the lift close to the patient. • Use the remote control to adjust the lift height. • Attach the sling's loops to the lift's hooks. • Lift the patient using the remote control. • Manually guide and move the lift to accurately position the patient into the wheelchair or bed, depending on the situation. 	<p>Slide board-Chair to chair</p> <ul style="list-style-type: none"> • Transfers between surfaces of equal height [level transfers] • Position the two wheelchairs side by side, parallel to each other. • Place the slide board securely between the chairs. • Ask the individual to lean forward. • One assistant supports under the knees, and the other supports around the waist. • Perform the transfer in a coordinated and synchronized manner.
<p>Slide board-Bed to Chair</p> <ul style="list-style-type: none"> • Position the wheelchair next to the bed and lock the wheels. • Remove the wheelchair's footrests and unfasten any straps. • Help the patient sit up on the edge of the bed, ensuring they are stable and upright. • The back assistant places the slide board under the patient's thigh and bridges it to the wheelchair. • The front assistant supports the patient's shoulders and gently leans them forward. • Both assistants work in sync to slide the patient across the board into the wheelchair. • Reposition the patient properly in the chair and re-secure any necessary straps. <p>Note: If the patient is undressed or wet, place a sliding sheet between the patient and the board to reduce friction and discomfort.</p>	<p>Slide board-Chair to Bed</p> <ul style="list-style-type: none"> • Ensure the wheelchair is positioned as close to the bed as possible and at the same height (if adjustable). • Two assistants are required: one in front of the patient, and one behind. • Remove the wheelchair's footrests and unfasten any safety straps. • The front assistant supports the patient at the shoulders, gently leaning them forward and shifting slightly to the side. • The back assistant carefully slides the transfer board under the patient's thigh and bridges it between the chair and the bed. • Both assistants coordinate and help the patient slide across the board onto the bed. • Once seated on the bed, the back assistant moves to the opposite side to help lower the patient into a lying (supine) position.

Transfer in airplanes, Medical Centre or other complex areas use transfer sling

e.g. **AbleSling**.

7. Mobilisation

- Always move slowly and gently. Stop at the first sign of resistance or discomfort.
- Hold each stretch for 20–30 seconds
- Repeat each motion 5–10 times, or as tolerated.
- Never force a joint past its natural range.

Lower limbs	Upper limbs
<ul style="list-style-type: none"> • Hip and Knee Flexion (“Knee to Chest”). • Hip Abduction/Adduction • Hip Internal/External Rotation • Hamstring Stretch (Straight Leg Raise) • Ankle – Dorsiflexion/Plantarflexion • Ankle Inversion/Eversion • Toes 	<ul style="list-style-type: none"> • Scapula (Shoulder Blade) • Shoulder Flexion/Extension • Shoulder Abduction/Adduction • Shoulder Internal/External Rotation • Elbow Flexion/Extension • Forearm Rotation • Wrist • Fingers & Thumb
See Appendix 1 for more detail	

Turning routine	
Task	Action
Initial Tasks	<ul style="list-style-type: none"> • Empty the urine bag. • Remove head pillow. • Remove covers and all extra pillows from around the person.
Positioning for the Turn	<ul style="list-style-type: none"> • Position yourself on the opposite side you will be turning the patient. • Use the bed sheets to gently move the person left (turning on right side) or right (turning on left side). • Shift the catheter to the side in the direction of the turn and point the knees in the same direction. • Place your hands under their bottom and gently pull them towards you to achieve a 90° turn towards the catheter side.
Support After Turning	<ul style="list-style-type: none"> • Place a long sausage pillow: Behind the back for support and between the knees. • Take the upper body and gently guide it backward onto the pillow as much as possible.
Final Adjustments	<ul style="list-style-type: none"> • Adjust and position any required pillows: <ul style="list-style-type: none"> - Head pillow - Arm/hand support pillows - A small pillow behind the large back pillow, if needed.



Finish Up	<ul style="list-style-type: none"> • Ensure the catheter tubing is not kinked or pulled and is properly attached to the bed. • Smooth bedding; check for bunched clothing • Cover the person with appropriate sheets or blankets for comfort and warmth
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8. Urology

<ul style="list-style-type: none"> • Day Bag: Change twice per week (e.g., Tuesday and Saturday). • Night Bag: Change daily. • Valve: Once per week • Clean the catheter exit site daily using mild soap and water or an antiseptic solution. • Make sure at all times catheter is not pulling. 	
Attaching night bag <ul style="list-style-type: none"> • Use soap and water or hand sanitizer to clean your hands thoroughly. • Prepare the Night Bag. • Ensure the tap is closed. • Put absorptive cloth under valve. • Detach day bag. • Clean the outlet tip with an alcohol or antiseptic wipe. • Insert the night bag's connector securely into the outlet. • Position the Night Bag on a suitable stand or hook. • Ensure Proper Flow • Confirm urine is flowing freely. • Ensure it remains below bladder level throughout the night. • Ensure the catheter is not pulling. • Empty and Clean day bag. 	Attaching day bag <ul style="list-style-type: none"> • Clean hands using soap and water or hand sanitizer. • Put absorptive cloth under valve. • Before detaching the night bag, ensure the tap is closed to prevent spills. • Disconnect the Night Bag (If before shower no further steps are required). • Clean the outlet tip with disinfectant. • Attach a day bag to outlet. • Attach the bag to the leg. • Insured the catheter is not pulling. • Empty Night Bag and throw away.

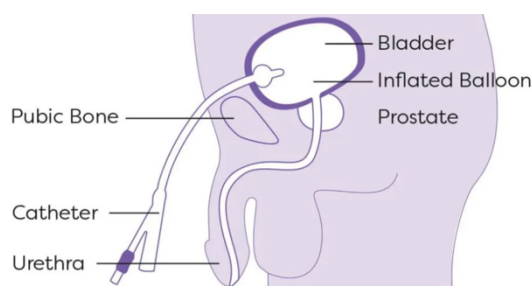


Diagram of superpubic catheter

9. Emergency Protocols

Situation	Action
Sudden high blood pressure	<ul style="list-style-type: none">• Sit the person upright• Check for and alleviate any triggers (e.g., bladder distension or skin pressure points)• Ensure catheter is not blocked
Low blood pressure	<ul style="list-style-type: none">• Raise legs and lean wheelchair back with closed breaks• Give supplements such as liquorice, chocolate or sugar.• Bring water• Cool body and room.
Breathing problematics	<ul style="list-style-type: none">• Help with coughing• Raise legs• Ensure no obstruction in airways• Cool room with air-conditioning or fans• Utilise coughing machine or AMBU
Catheter is blocked	<ul style="list-style-type: none">• Clean Bladder• Use syringe with an NaCl water to clear obstruction.• If catheter cannot be unblocked do intermittent urethral catheterization.
Pressure ulcers	<ul style="list-style-type: none">• Zinc cream or patches

10. Caregiver Checklist

Caregiver checklist	
Frequency	Action
Multiple times a day	Empty leg back
Four times a day	Bring out the dog
Daily (Morning and evening)	Tidying and organising room
Two days a week	Cleaning room and bathroom
Once every two weeks	Wheelchair tire pressure
Monthly	Nuts and bolts of wheelchair are tight
Monthly	Checking and restocking supply

Swimming pool bag	
Item	Quantity
Towels	2 big, 1 Medium, 1 Small
Catheter Plug	1
Disinfectant	1
Amuchina	1
Gloves	6
scissors	1
Adhesive plastic tape	1
Adhesive gauze	1
Gauze	5
Absorptive sheet	2
Underwear	1
Plastic bags	1
Swimming pillow	1

Appendix 1: Assisted stretching detailed explanation

stretch. When you're moving your body, do it slowly and smoothly. As you hold the position, maintain a firm but gentle pressure for 30 seconds or a slow count of 10. Don't bounce your body—this tends to encourage spastic muscles to tighten.

Assisted Stretching

These instructions outline the correct motions and body positioning required to perform range-of-motion exercises safely. Remind your attendants to use careful movements so they don't hurt their own backs.

[SAM]

S: Your **STANDING** position

A: Your **ATTENDANT'S** position

M: The actual **MOVEMENT**

Trunk Rotation

S: Lying on your back with your knees bent to your chest.

A: Kneeling at your feet with both hands placed on your knees.

M: Rotate your knees and hips to one side; bring them as close to the bed as they will go; keep your shoulders flat on the bed. Your attendant may need to put one hand on your opposite shoulder to hold it down.



Trunk Bending

S: Lying on your back with your legs together and your knees bent toward your chest.

A: Kneeling at your feet with both hands placed on your knees.

M: Bend your knees to your chest, stretching your back muscles.



Hip Abduction with Knees Bent

S: Lying on your back with your legs bent.

A: Kneeling with your feet between attendant's knees to hold them in place, each hand placed on your knee.

M: Spread your knees apart, and down towards the bed, applying a firm (but not heavy) pressure.

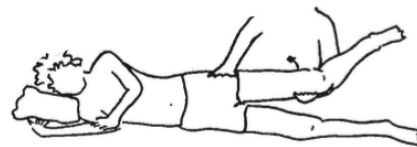


Hip Extension

S: Lying on your side, not leaning forward or back, with your upper leg slightly bent.

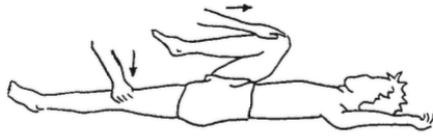
A: Kneeling behind you, one arm cupping under your knee with your calf resting on his or her forearm, and the other hand holding your pelvis in place.

M: Pull your leg straight backward toward your attendant.



Stretches (Hip Flexion & Extension)

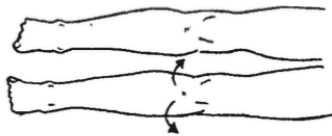
S: Lying on your back with your toes pointing toward the ceiling, one knee bent toward your chest.



A: One hand placed on your bent knee, the other hand placed just above the knee of your straight leg.

M: Bend your bent leg further toward your chest, keeping your other leg straight on the bed.

Leg Rotation



S: Lying in bed, your legs straight and relaxed.

A: Hands placed on top of your thigh, or one hand on top of your thigh, the other underneath your thigh.

M: Roll your knee in and out. Do not have your attendant's hands placed below your knee or there will be excessive stress to your knee.

Heel Cord (Gastroc/Soleus)

S: Lying on your back with your knees straight.

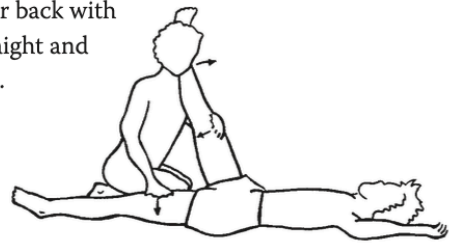


A: One hand cups the inside of your heel, with the forearm pressed up against the ball of your foot.

M: Keeping your knee straight, pull down at your heel and press up with the forearm, bending your foot toward your knee.

Straight Leg Raise (SLR)

S: Lying on your back with your legs straight and slightly apart.



A: Two positions possible:

1. Kneeling

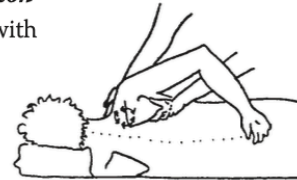
between your legs, with one hand cupping your heel while the other hand is holding the knee of the same leg. The attendant's knee may be resting lightly on your other thigh to stabilize your leg on the bed.

2. Kneeling between your legs, with your heel cord resting on the attendant's shoulder. One of the attendant's hands should be placed on that knee to keep it straight, the other hand should be on your other thigh to stabilize that leg on the bed.

M: Slowly raise your leg up, keeping your knee straight. Do not allow your leg to roll out. When your raised knee begins to bend slightly from the tension, have your attendant lower your leg slightly and hold. Do not move beyond the leg pointing straight up to the ceiling.

Scapular Circumduction

S: Lying on your side with your arm resting on your hip or behind your back.

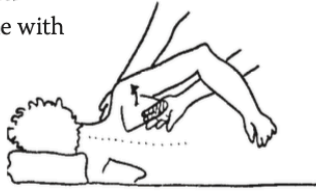


A: One hand cupping the front of your shoulder, the other placed so the web of the thumb meets with the angle of your shoulder blade.

M: Moving both hands circularly in the same direction, roll the shoulder blade slowly in a large circle.

Scapular Protraction

S: Lying on your side with your arm resting on your hip or behind your back.



A: One hand cupping the front of your shoulder, the other placed so that the pinkie side of the attendant's hand is next to your shoulder blade.

M: Applying a firm pressure backward on your shoulder, slide the other hand under your shoulder blade, lifting away from your back.

Shoulder Rotation

S: Your arm out from your side at about 45 degrees, your elbow bent 90°.

A: One hand cupping your elbow, the other supporting your wrist and hand.

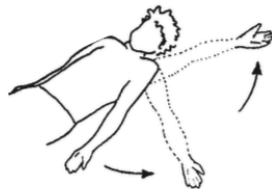


M: Rotate your hand toward the bed by your pillow, and then toward your hip. Keep your elbow bent at 90°.

Abduction

S: Lying on your back with your arm at your side and your palm up.

A: One hand supporting your hand and wrist, the other cupping your elbow.



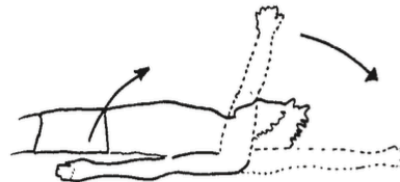
M: Bring your arm out to your side up to your head (similar to the movement in jumping jacks).

Forward Flexion

S: Your arm at your side, palm up.

A: One hand supporting your wrist/hand, the other supporting the back of your elbow.

M: Raise your arm up over your head, with your thumb leading, pointing first at the ceiling and finally the wall. Keep the elbow relatively straight.



Shoulder Extension

S: Sitting in your chair or lying on your side in bed.

A: One hand stabilizing your shoulder, the other cupping your arm near your elbow.



M: Bring your arm back behind you as if you were going to reach into your rear pocket.

Elbow Flexion/Extension

S: Your arm straight at your side, palm up.

A: One hand supporting your wrist and hand, the other stabilizing your upper arm.



M: Straighten your arm to its fullest, then bend your elbow, bringing your hand to your shoulder.

Supination/Pronation

S: Your arm at your side with your elbow bent 90 degrees.

A: Supporting your wrist/hand and stabilizing your arm just above your elbow.

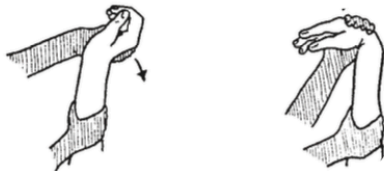
M: Turn your palm up; then turn your palm down.



Repeat the above with your elbow straight. You can combine this exercise with the one above (Elbow Flexion/Extension)

Wrist Flexion/Extension

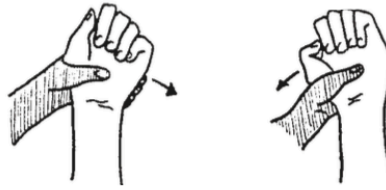
S: Wrist and fingers relaxed.



A: One hand supporting your forearm, the other hand clasping your palm—be certain that your fingers are free to move.

M: Bend your wrist down, allowing your fingers to straighten at will. Bend your wrist up, being certain that your attendant's hand and fingers do not interfere with your fingers' bending.

Wrist Deviation



S: Your wrist in line with your arm, not bent up or down.

A: Supporting your hand, the other stabilizing your forearm.

M: Move your hand side to side, not allowing your wrist to bend up or down.

Finger Flexion

S: Your fingers relaxed, your wrist bent up.

A: Supporting your hand and wrist.

M: Gently bend your fingers toward your palm, being certain to keep your wrist cocked (bent) up.



Finger Extension

S: Wrist and fingers relaxed.

A: One hand supporting your forearm and keeping your wrist bent down, the other hand cupping your fingertips.

M: Keeping your wrist bent down, straighten your fingers. The movement should come from your knuckles and the joints of your fingers, not your wrist.



Finger Abduction

S: Wrist straight, fingers and thumb relaxed.



A: Holding adjacent fingers straight.

M: Spread fingers apart.

Hand Mobilization

S: Your palm down with your thumb and fingers relaxed.



A: Cupping your hand in both hands, the attendant's right thumb and index finger hold one knuckle while the left thumb and index finger hold the next knuckle over.

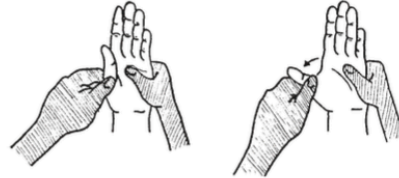
M: One hand gently pushes down on the knuckle it is holding while the other hand pushes up. Reverse directions. Move across your hand.

Thumb Abduction/Extension

S: Palm up with your fingers and thumb relaxed.

A: One hand stabilizing your palm, the other grasping your thumb with your attendant's thumb at the base of your thumb.

M: Move your thumb out and away from your palm as if you were hitchhiking.

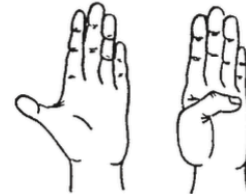


Thumb Opposition

S: Palm up with your fingers and thumb relaxed.

A: Holding your thumb over your nail.

M: Touch the tip of your thumb to the base of your little finger.



Appendix 2: Wheelchair management

Going down a step with an assistant



- 1 Make sure that the wheelchair can be controlled by the user or the assistant before performing a tilting manoeuvre
- 2 Move the wheelchair right up to the kerb and hold the hand rims.
- 3 The assistant should hold both push handles, remove the anti-tipper (if installed) and tilt the wheelchair backwards so that the front wheels lift off the ground.

The assistant should then hold the wheelchair in this position, push it carefully down the step and then tilt it forwards until the front wheels are back on the ground.

Going up a step with an assistant

- 1 Make sure that the wheelchair can be controlled by the user or the assistant before performing a tilting manoeuvre
- 2 Move the wheelchair backwards until the rear wheels touch the kerb.
- 3 The assistant should tilt the wheelchair using both push handles so that the front wheels lift off the ground, then pull the rear wheels over the kerb until the front wheels can be placed back on the ground.

Going up and down stairs

- Always use two assistants when negotiating stairs with more than one step.



1. You can go up and down stairs by taking them one step at a time, as described above. The first assistant should stand behind the wheelchair holding the push handles.
2. The second assistant should hold a solid part of the front frame to steady the wheelchair from the front.

WARNING!

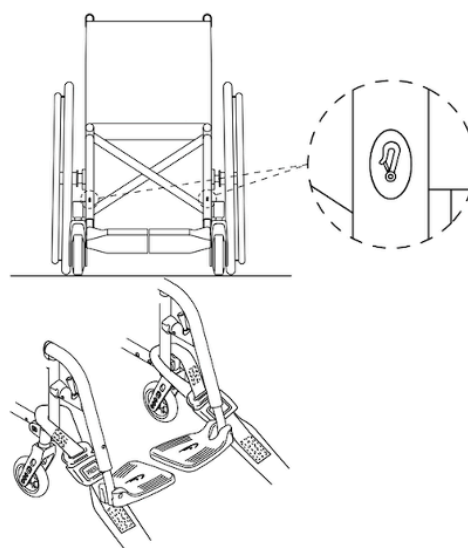
Going up steps and kerbs often cause:

- Fatigue.
- Break of the wheelchair back rest.
- The user might fall out of the wheelchair.
- Risk of serious injuries.

Securing the wheelchair with a 4-point restraint system on car

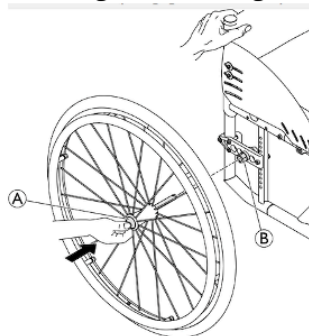


1. Place the wheelchair with the user forward-facing in direction of vehicle travel.
2. Apply the wheelchair parking brakes.
3. Activate anti tipper (if installed).
4. The wheelchair tie-down positions where the restraint system straps must be placed are marked with snap hook symbols
5. Using the front and rear straps of the 4-point restraint system, secure the wheelchair to the vehicle mounted rails.



6. Attach the front straps above the castor supporters as shown in the two figures above (see location of the attachment labels).
7. Attach front straps to the rail system referring to best practice recommended instructions from the safety belt manufacturer.
8. Release the parking brakes and apply tension front straps by pulling the wheelchair backwards from the rear.
9. Readjust the parking brakes.

Removing and Installing the Rear Wheels



Removing the Rear Wheels

1. Disengage the wheel locks. With one hand, hold the wheelchair upright.
2. With the other, hold the wheel through the external spoke rim around the wheel hub.
3. Using your thumb, press the removable axle button (A). Keep it pressed and pull the wheel out of the adapter sleeve (B).

Installing the Rear Wheels

- 1 Disengage the wheel locks.
- 2 With one hand, hold the wheelchair upright.
- 3 With the other, hold the wheel through the external spoke rim around the wheel hub.
- 4 Using your thumb, press the removable axle button (A) and hold it down.
- 5 Push the axle into the adapter sleeve (B) up to the stop.

Release the removable axle button and make sure that the wheel is secure.

WARNING!

- Risk of Overturning
- If the removable axle of a rear wheel is not fully engaged, the wheel can become loose during use.
- Always ensure that the removable axles are fully engaged whenever you fit a wheel.