Cervical Thoracic Orthosis (CTO) Care

A cervical thoracic orthosis is a type of neck and upper body brace. It is used to protect the upper part of your spine, called the cervical spine, after an injury or surgery to allow for healing. The length of time you will wear the brace will depend on your injury and your doctor’s orders.

The brace should only be removed for cleaning your skin underneath and changing the pads. Be sure to follow your doctor’s orders about wearing the brace.

General care tips

- Do not use any powder or lotion on your skin under the brace.
- Keep your skin clean and dry under the brace. Wear the brace over a shirt.
- Be sure to check your skin each day for any red, sore or irritated spots. Your caregiver will need to help you with this. Call your doctor, nurse, or therapist if you see any spots on the skin from the brace.
- When you are lying on your back, the bed should be flat with no pillow under your head. Rest your arms at your sides and keep your head centered with your body, not bent or turned.
- The lower edge of the front piece of the brace should be resting against the rib cage or just below the breasts.
- There should be no plastic touching the skin.

Putting your brace on

You will need someone to help you put the brace on. If you have long hair or a beard, be sure the hair is pulled up, so it is outside the collar.

1. Log roll onto your side keeping your head, neck, shoulders, and hips in a straight line. Do not bend or turn your neck to the side without the rest of your body turning as a whole.
2. Your caregiver should place the back piece of the collar on the back of your neck, so it is centered.
3. Place the back piece of the brace on the bed with the shoulder and trunk straps spread out behind you.
4. Log roll back onto the back piece of the brace, keeping your head, neck, shoulders, and hips in a straight line while holding the back piece of the cervical collar.
5. Your caregiver should hold the front of the collar and slide it up until it rests under your chin. The sides of the collar front should be off the collar bone, angled toward your ears. The front collar ends are to be inside the back piece of the collar. The lower edge of the front part of the brace should be resting against the rib cage or just below the breasts.

6. Attach the Velcro straps on each side. Tighten 1 side strap and then the other side, so they are equal in length on both sides. The straps are to be blue on blue so they line up with the blue strips on the front collar piece. This helps to keep the collar parts together at the correct angle.

7. Be sure the back part of the brace is in the center of your back.

8. Connect the 2 shoulder straps to attach the front of the brace to the back. Both shoulder straps should be of equal length. These may be loose when you are lying flat. Adjust these straps for a snug fit after you sit up.
9. Buckle rib straps, pulling straps even and tight.
10. Make sure that all straps lie flat with no slack or gaps.

   Your brace fits well if you are NOT able to:
   • Easily slide a finger behind the top of the chest piece
   • Slide your chin inside the collar
   • Move your head

Bathing
Clean and check your skin each day to be sure you have no signs of redness, irritation, or open sores. Your brace should also be cleaned each day.

Use a hand-held shower, so you do not have the brace in a direct stream of water. This is to prevent soaking the back brace and weakening the Velcro and strap connections.

   • Wash, rinse, and towel dry around your brace.
   • Follow the steps below (Removing the brace for a bed bath), so you can:
     ‣ Dry and check your skin under the brace.
     ‣ Dry off the brace pieces and change the pads on the brace.

Be sure your skin, the brace parts and pads are dry before you reapply the brace.

Removing the brace for bed bath
If you do not have a hand-held shower, you will need to do a bed bath. Follow these steps:
1. Lie on your back.
2. Open the shoulder and waist straps on one side of the brace.
3. Loosen the Velcro straps on the same side of the collar.
4. Carefully, log roll to your side keeping your head, neck, shoulders, and hips in a straight line.
5. Remove the back part of the collar from the neck. Your head and neck should be resting in the front piece of the collar.
6. Wash the back of your neck and dry well.
7. Check the skin for any signs of irritation.
8. Change the pads on the back part of the collar with the set of clean pads.
9. Place the back piece of the collar around the neck, so it overlaps the side of the front piece.
10. Carefully log roll onto your back.
11. Repeat steps 5 through 9 with the front piece of the collar and the front of your neck.
12. Reapply the brace following the steps on pages 1 to 3 (Putting the brace on).
Care and cleaning of your brace and pads

Clean your CTO and put clean pads on your brace each day. Keep it dry to prevent skin breakdown.

You should have an extra set of pads for your brace. Change the pads and wash one set each day.

1. Remove the blue pads attached to the white shell. You may want to remove 1 pad at a time to keep track of where it belongs.
2. Wash the pads in mild soap and water. **Do not** use bleach or harsh detergents.
3. Rinse well with clean water and squeeze out excess water.
4. Lay the pads flat to dry.

5. Wash the white shell with mild soap and water. Rinse and dry before replacing pads.

6. Attach the clean pad by folding it in half with the dull side out and place it in the center of the plastic shell.

7. Unfold the pad and press it into place on the Velcro strips.

8. Adjust the pads as needed, so your skin does not touch the plastic.

9. The shiny side of the pad should always go against your skin.

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**Talk to your doctor or health care team if you have any questions about your care.**

For more health information, contact the Library for Health Information at **614-293-3707** or e-mail **health-info@osu.edu**.

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