

PAEDIATRIC NURSING PRACTICE MANUAL
SECTION 7

CARE OF THE CHILD WITH A RESPIRATORY CONDITION

7.4 CARE OF THE CHILD WITH A TRACHEOSTOMY

7.4.4 CHANGING TRACHEOSTOMY TAPES AND BEAD CHAINS

The care described throughout this document is in conjunction with/supplemental to all documents within [PNPM Section 7.4 Care of the Child with a Tracheostomy](#).

Aims

1. To maintain the safety of the tracheostomy securing device so as to prevent accidental decannulation.
2. To maintain the skin integrity of the neck by assessing and replacing wet, stiff or tight tracheostomy securing device.

CHANGE OF TRACHEOSTOMY TAPES

Key Points

1. In this document tapes/ties/chains are referred to as securing devices - unless otherwise specified.
2. Tapes must not be changed until authorised by the surgeon. This usually occurs at the first tube change (except for patients in ICU).
3. This is a two person procedure.¹⁻³
4. Cotton ties are used when the tube is first inserted in theatre.
5. Commercially manufactured foam and velcro tapes are available. The advantages are patient comfort and ease of changing.^{3,4} They should be used with caution in children who have an inadequate airway above the tracheostomy tube and children who tend to pull at the tube or pull their tube out.

CHANGE OF TRACHEOSTOMY BEAD CHAINS ⁴

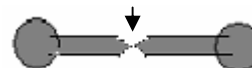
Key Points

1. Tracheostomy bead chains are currently not approved for use in Australia by the Therapeutic Goods Administration (TGA). For this reason, the **chains should only be used on patients who have Special Access Scheme (SAS) approval**. Approval is sought by the CNC for Technology Dependent Children (CNC TDC).
2. Children utilising bead chains must always have a pair of wire cutters immediately available at the bedside in the event that the tracheostomy tube needs to be removed in an emergency.
3. Scissors and wire cutters can not be taken as hand luggage when travelling by air. Velcro tapes may be more appropriate when flying.
4. Prior to attending MRI and Operating Theatre, Bead Chains must to be replaced with a velcro tracheostomy tape. Parents/Carers will be informed of this when electing to use Bead Chains.
5. Tight tapes, ties, chains or the clasp may cause trauma if not checked or properly positioned.
6. Bead Chains are initially sized by the CNC TDC in collaboration with the parent/carer. Parents can choose the lobster or barrel clasp chains and are given 2 spare chains. One spare is cut to size the other spare chain is not cut to length to allow resizing if the child grows or needs shorter chains.

Key Points (cont.)

7. **Spare chains and wire cutters** are available in the Technology Dependent Children’s equipment cupboard if required after hours. See the intranet [A-Z of /clinical guidelines manuals procedures / 'T'](#) for more information related to accessing the cupboard.
8. For further information on Bead Chains Refer to [A-Z of /clinical guidelines manuals procedures / 'T' Trachy Bead Chains](#) or contact CNC TDC.
9. Bead Chains should be stored in rigid container to prevent damage to the chains i.e. specimen jar.
10. **Cutting a chain:** Chains should only be cut by nurses who have received instruction from the CNC TDC or CDN on how to safely do this.

When sizing the chains identify the link (space between balls) to be cut and only use the wire cutters on that link. Do not press the wire cutters onto a link you do not intend to cut as this may be prone to breaking and weaken the link.



Equipment

All Mandatory tracheostomy equipment. Refer to [PNPM 7.4.1](#) Set up for a Child with a Tracheostomy.

Foam and velcro tapes, cotton ties or bead chains (Barrel Clasp or Lobster Clasp Bead Chains cut to size)

Rigid Container

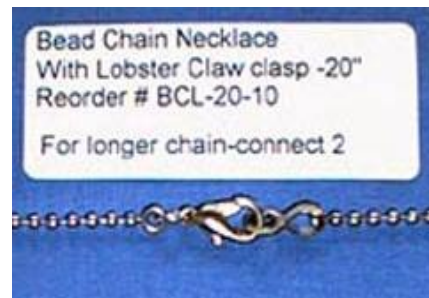
Wire Cutters



Barrel Clasp (also see page 3)



Lobster Clasp



PROCEDURE	ADDITIONAL INFORMATION
<p>Skin Assessment:</p> <p>Assess the child’s skin for areas of redness from rubbing/friction and skin breakdown from tight securing devices at least twice a shift.</p> <p>Securing devices should be dry.</p>	<p>A child that dribbles, sweats or is left with wet tapes/ties will be prone to skin breakdown.</p> <p>Constant contact of the skin with fluid will lead to a break in skin integrity leading to pain/discomfort and infection.</p>
<p>Contact CNC TDC or CNC Stomal/Wound Management for assistance with the management of skin breakdown.</p>	

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Changing Tracheostomy Tapes and Bead Chains




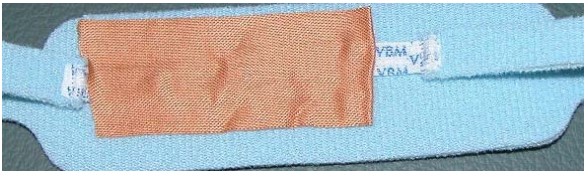
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PROCEDURE	ADDITIONAL INFORMATION
<p>Frequency of Change:</p> <p>Change tracheostomy tapes daily.</p> <p>If tapes become soiled or wet from secretions or sweat, change more frequently.⁵</p> <p>Wipe secretions and moisture around neck with a cloth.</p> <p>Change bead chains only when the tracheostomy tube is changed. Daily changes are not necessary.</p>	<p>Following discharge and if there are no problems with the skin integrity of the neck, parents/carers may choose to change tapes/ties less frequently than daily.</p>
<p>Trim the end of the Velcro tapes to form a point.</p> 	<p>This allows for easier insertion of tapes through the holes in the neck plate.</p> <p>Do not shorten the length of the Velcro – Less Velcro means the airway is less secure.</p>
<p>Remove child's shirt to expose neck, stoma and tracheostomy tube.</p>	
 <p>Position the child with the neck extended.</p> <p>Place a cloth roll under the shoulders.</p>	<p>The roll assists in extending the neck and exposes stoma and neck plate.</p>
<p>Person 1: Responsible for maintaining the airway.</p> <p>Hold the tube in position with the thumb and index finger.</p>	<p>Do not</p> <ul style="list-style-type: none"> let go of the tube until the securing device is secured push tube down into the trachea, just gently hold the tube against the skin

PROCEDURE	ADDITIONAL INFORMATION
<p>Person 2: Remove (or cut) the device from one side of the tube.</p> <p>Clean and dry the stoma and neck.</p> <p>Thread the new device through one side of the neck plate of the tracheostomy tube.</p> <p>Repeat the procedure for the other side.</p> <p>The bead chain clasp is usually positioned at the side of the neck near the neck plate.</p> <p>Only one ball of the Lobster or Barrel chain should be placed into the clasp.</p> 	<p>See PNPM 7.4.2 Care of tracheal stoma.</p>  <p>Lobster clasp positioned next to neck plate</p> <p>Although some parents prefer to position at back of the neck, in hospital - for ease of assessment, they should be repositioned on the side of the neck.</p>
<p>Security</p> <p>Sit the child up and flex the head forward gently.</p> <p>Place your finger under the tape at the back of the neck.^{2,6}</p> <p>Ensure device is firm but not tight.</p> <p>The chains should feel slightly tighter than the Velcro tapes due to the smaller width of the chains.</p> <p>Do not allow the clasp to rest close to or protrude into the neck plate holes.</p> <p>Assess the skin at location of the clasp.</p> <p>If redness occurs, adjust the position of the clasp</p> <p>Contact the CNC TDC or the CNC Stomal/Wound Management for assistant with stoma or skin issues.</p> 	<p>By checking at the back of the neck the tension is spread evenly along the sides of the neck.</p> <p>Do not just check on the side.</p> <p>The smallest circumference of the neck occurs when the head is partially flexed.</p> <p>A correct fit is vital to minimise the risk of accidental decannulation.</p> <p>Tight tapes, ties or chains can lead to skin breakdown.</p> <p>This places the chain at risk of coming undone.</p>
<p>Security for foam and velcro tapes:</p> <p>Secure velcro tapes using an adhesive tape over the velcro ends as required</p> 	<p>Often children, between the ages of 1-3 years, may pull at their tracheostomy tube covering the velcro ends increases the security of the tube.</p>

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PROCEDURE	ADDITIONAL INFORMATION
<p>Check the tapes 15 minutes to 1 hour. Re-adjust if necessary.</p>	<p>Tapes usually stretch with body heat and may become loose. If tapes are too tight, pressure areas will develop.</p>
<p>Single-Use or Reusable: In hospital velcro foam tapes are Single-Use Devices.</p> <p>Tracheostomy bead chains are reusable. Clean with soapy water and dry with a soft cloth.</p>	<p>Velcro tapes can be reused in the home. They should be thrown out as soon as they lose any ability to adhere.</p> <p>Instruct parents/carers to wash with soap, rinse and dry.⁷</p> <p>Parents can obtain further chains via the Consumables Coordinator in the same way they obtain other tracheostomy consumables.</p>
<p>For Cotton Ties:</p> <p>Tie 3 non slip knots allowing one small finger space underneath the tapes.⁴</p> <p>This securing device is used when a tracheostomy tube is initially inserted in Theatre and by Lady Lawley Cottage.</p> <p>Cotton ties are not reused.</p>	
<p>Ensure knots are tight and trim the ends closely.</p>	<p>Tapes must not be confused with other ties around the neck, eg. bibs.</p>

References:

1. Oliver LT. Improving tracheostomy care for ward patients [Expert Opinion]. Nursing Standard.19(1919):33-37; 2005.
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4. Chitakis M. Bead chain necklaces as an alternative securing device to cotton twill and velcro ties for children with tracheostomies [Expert opinion]. Brisbane: Royal Childrens Hospital Brisbane & Health Service District. 2007.
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7. Fiske E. Effective strategies to prepare infants and families for home tracheostomy care [Expert opinion]. Advances in Neonatal Care.4(1):42-53; 2004.

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All protocols should be read in conjunction with the Disclaimer in the Preface of this manual