

# Bivona TTS Trach Cuff

## What is the cuff?

The cuff is an inflatable area near the end of the trach tube. This cuff is used to help direct the breaths from the ventilator to your child's lungs.



Deflated cuff

When inserting or removing a cuffed trach tube for any reason, always make sure the cuff is fully deflated.



Inflated cuff

## How often do I need to check the cuff?

Check the cuff twice daily. Once in the morning and then in the evening to make sure the cuff has the correct amount of sterile water in the cuff.

## To check the amount of sterile water in the cuff

### Deflate the cuff first

Cuff deflation and inflation are done while the trach is in your child. The photos below simply show how the cuff works and are for education purposes only.



**1** Wash your hands or use hand sanitizer and put on clean gloves.



**2** Use a Luer-Lok tip syringe. Make sure that the plunger is all the way in like in the photo.



**3** Push and twist syringe onto the pilot balloon.



**4** Pull back the plunger to draw all the sterile water and air into the syringe.



**5** Hold the plunger with your thumb and pointer finger to keep the water from going back into the cuff.



**6** Hold the pilot balloon and twist off the syringe.

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**7** Hold the syringe with the Luer-lok end up. Slowly push the plunger up to remove the air.



**8** Use your finger to flick the syringe to remove the air bubbles from the sterile water.



**9** Hold at eye level and see how many ml's of sterile wáter is in the syringe.

## Inflate the cuff



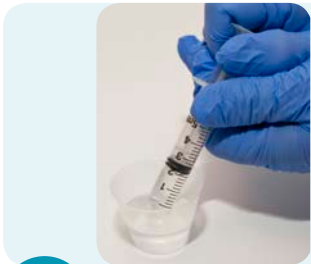
**1** Wash your hands or use hand sanitizer then put on clean gloves.



**2** Use a Luer-Lok tip syringe.



**3** Pour fresh sterile water into a medicine cup.



**4** Draw up the prescribed amount of sterile wáter into the syringe. Be sure to remove the air bubbles and check that the water level in the syringe is accurate.



**5** Hold the pilot balloon and push and twist the syringe in place.



**6** Push the plunger in slowly to inflate the cuff.



**7** Hold the end of the plunger to make sure that all the fluid goes to the cuff and does not flow back to the syringe.



**8** Hold the pilot balloon and twist the syringe off.

## How do I check the cuff to make sure that it is working properly before a trach change?

Before placing a new or cleaned trach, you need to check the cuff to make sure that it inflates evenly and does not leak sterile water.

1. Be sure to wash your hands and have on clean gloves.
2. Over-inflate the cuff with 5ml of sterile water and check to make sure that the cuff inflates evenly and does not leak. Then remove the 5ml of sterile water, verify that the cuff completely deflated.

## How much sterile water goes into my child's trach cuff?

This is determined by the Respiratory Therapist (RT). If your child is on a ventilator, Bipap, CPAP, or Cough Assist, the therapist will find the amount of sterile water needed in the cuff to provide good chest rise with a small amount of leak around the trach tube. This small amount of leakage is good and it confirms that a small amount of air can get around the cuff and that the cuff is not overinflated or pushing against the inside of the trachea. This leak is called the minimal leak technique. To find the minimum amount of sterile water, the RT will watch the chest rise, check the size of their breaths on the ventilator and listen for a audible leak and bubbles around the trach tube at their stoma site. Some children may need to have a little more fluid added to the cuff to prevent the leak. This is called the minimal occlusion value. The amount of sterile water in the cuff may change as your child grows or when the trach tube size has been changed. Your child may need more sterile water in the cuff if you hear a large leak around the stoma or if the ventilator gives additional breaths (auto-cycles) when the child is asleep. Contact your doctor so they can help with this evaluation and make the changes on the home care orders.

### To Learn More

- Home Care Services 425-482-4000, toll-free 800-888-4429
- Respiratory Care 206-987-2258
- [www.seattlechildrens.org](http://www.seattlechildrens.org)

### Free Interpreter Services

- In the hospital, ask your child's nurse.
- From outside the hospital, call the toll-free Family Interpreting Line 1-866-583-1527. Tell the interpreter the name or extension you need.

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Seattle Children's offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children's will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201.

This handout has been reviewed by clinical staff at Seattle Children's. However, your child's needs are unique. Before you act or rely upon this information, please talk with your child's healthcare provider.

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