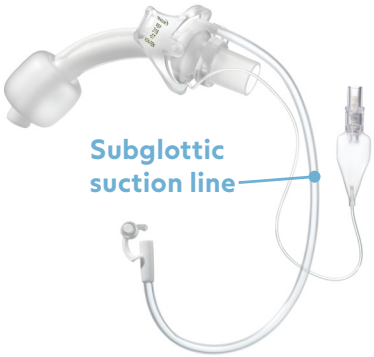
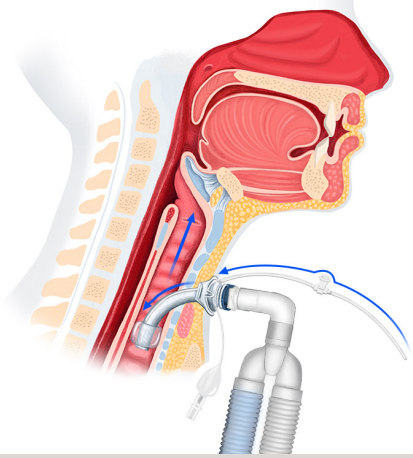
Atos Learning Institute

Above Cuff Vocalization (ACV) Guidelines

Tracoe Twist Plus Extract	Arrows demonstrate airflow pattern with ACV
	

Above Cuff Vocalization (ACV) is a voicing technique typically used with patients who are alert, cooperative, and require an inflated cuff. To use ACV, a tracheostomy tube with a **subglottic suction line is required.** The suction line is used to introduce air or compressed oxygen into the subglottic lumen. This airflow travels into the upper airway restoring audible voice.[1]

Use of ACV has been shown to be **safe, restore earlier communication, and improve quality of life.**[1,2,3] Additionally, improvements in swallow frequency and aspiration ratings with the use of ACV have been reported.[4]

It is important to acknowledge that not all patients will immediately produce audible phonation. Some patients require several ACV sessions before phonation is achieved. Adjustments in positioning, flow rate, and duration of ACV may be needed for patient comfort and to maximize outcomes. A team approach with trained clinicians is considered best practice.

References

1. Petosic, A., Viravong, M. F., Martin, A. M., Nilsen, C. B., Olafsen, K., & Berntzen, H. Above cuff vocalisation (ACV): A scoping review. Acta Anaesthesiologica Scandinavica. 2021; 65(1):15-25.
2. Gajic S, Jacobs L, Gellentien C, Dubin RM, Ma K. Implementation of Above-Cuff Vocalization After Tracheostomy Is Feasible and Associated With Earlier Speech. Am J Speech Lang Pathol. 2024;33(1):51-56.
3. Pandian, V., Cole, T., Kilonsky, D., Holden, K., Feller-Kopman, D. J., Brower, R., et al. Voicerelated quality of life increases with a talking tracheostomy tube: a randomized controlled trial. The Laryngoscope. 2020; 130(5):1249- 1255.
4. McGrath BA, Wallace S, Wilson M, et al. Safety and feasibility of above cuff vocalisation for ventilator-dependant patients with tracheostomies. J Intensive Care Soc. 2019;20(1):59-65.

Contact your Tracoe Sales Specialist with any questions or reach out to us at info.us@atosmedical.com

1.800.217.0025
info.us@atosmedical.com
www.atosmedical.us

TRACOE

Atos Learning Institute

Above Cuff Vocalization (ACV) Guidelines

The following steps are general guidelines for ACV. They are not specific recommendations from Atos Medical. Healthcare providers using ACV should base assessment and treatment decisions on current ACV research, develop their own ACV policies and procedures, and adhere to the tracheostomy tube IFU. For Instructions For Use, please visit www.atosmedical.us.

Explain the ACV procedure to the patient and caregivers. Prepare the patient for the sensation of airflow in the upper airway, possibility of coughing, and do not guarantee voicing.

Remove secretions from the subglottic space using subglottic suctioning.

Connect O_2 tubing to the suction line with a thumb port (also called fingertip connector, or suction control valve).

Connect the O_2 tubing to a source of compressed air.

Introduce airflow into the suction line starting with 1 liter per minute (LPM).

Occlude thumb port to introduce airflow into the upper airway and encourage voicing.

Gradually increase airflow to a typical flow rate of 4-6 LPM. Flow rates should typically remain below 10 LPM.

Duration of ACV trial will depend on patient's tolerance and facility policies and procedures.

Document results of ACV session.

Safety tips:

- Monitor vital signs during ACV and discontinue if significant changes from baseline occur
- Upper airway patency is required for ACV
- Do not proceed with ACV if there is bleeding or edema at the stoma or less than 48 hours post-tracheotomy
- If neck and face swelling occur during ACV trial, immediately discontinue ACV and notify the MD

Tips for success:

- Start with short sessions to allow the patient to adjust to the sensation of external airflow
- Gradually increase duration as tolerated
- Monitor patient's reaction and tolerance and make adjustments such as patient position, flow rate, duration of trial as needed