



TRACHEOESOPHAGEAL VOICE RESTORATION

Certification Program

The *Health Professions and Occupations Act's* [Health and Care Professionals Regulation](#) authorizes certified speech-language pathologists to insert an instrument, device, hand, or finger beyond the pharynx and into an artificial opening into the body for the purposes of assessing and managing voice restoration with patients who have undergone total laryngectomy. In addition, a certified speech-language pathologist may administer topically a Schedule I or II drug that is an anaesthetic for the purposes of performing these certified restricted activities.

Certification program learning objectives

A Full licensee in good standing may apply to be certified to perform this restricted activity if they successfully complete the following requirements within a period of 3 years or less.

Licensees who anticipate needing longer than 3 years to complete certification program requirements may request an extension by emailing certification@chcpbc.org. Extension requests are reviewed and approved by the Licence Committee.

Supervised practice should occur after completion of observations and in order of objective number. Supervision level should decrease gradually to enable the licensee to attain autonomous practice.

Objectives	Knowledge, skills, and demonstrated competencies for certification program
Objective 1	Attains foundational experience for assessing and managing voice disorders and restoration using tracheoesophageal puncture (TEP) techniques and prostheses
1.1	Completes a minimum of one-year clinical practice experience with adults (work as Provisional and Full licensee counts). Training on this certificate may commence prior to completion of the one-year experience.
Objective 2	Attains clinical knowledge for tracheoesophageal voice restoration and tracheostoma care in the total laryngectomy population
2.1	Knowledge of post-laryngectomy anatomy and physiology in relation to respiration, swallowing, and the production of tracheoesophageal sound.
2.2	Knowledge of surgical techniques and effects on tracheoesophageal voice restoration and swallowing (e.g., pharyngeal reconstruction, gastric pull-up).
2.3	Knowledge of the reasons for total laryngectomy (e.g., cancer, trauma, incompetent larynx).
2.4	Knowledge of the effects of additional head and neck surgery, radiation therapy, immunotherapy and/or chemotherapy on the management of tracheoesophageal voice restoration.



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2.5	Knowledge of cancer related implications for treatment (e.g., tumour staging, prognosis).
Objective 3	Selects patients as candidates for tracheoesophageal voice restoration correctly
3.1	Understands and has knowledge of the factors involved in client selection for tracheoesophageal voice restoration, including: - the purpose of the tracheoesophageal puncture (TEP) and voice prosthesis - the advantages and disadvantages of tracheoesophageal voice restoration - anatomical and physiological requirements for producing sound at the level of the pharyngoesophageal (PE) segment/neoglottis - the physical, cognitive, financial, and social considerations for tracheoesophageal voice restoration - tracheoesophageal voice restoration surgical procedures and timing (primary vs. secondary puncture/voice prosthesis placement) - voice prosthesis function, use and daily cleaning according to manufacturer's instructions - materials/information for pre-operative consultation, post-operative consultation, and purpose of peer laryngectomy visit
3.2	Demonstrate proficiency in identifying physical, cognitive, financial, and social factors that contraindicate or complicate successful outcome of the tracheoesophageal voice restoration.
Objective 4	Performs voice prosthesis removal, sizing, and insertion independently
4.1	Completes a minimum of 5 observations performed by an authorized health professional, including: - removal of feeding tube/catheter or voice prosthesis from TEP - sizing and insertion of voice prosthesis - at least 2 indwelling prostheses
4.2	Uses lighting and patient positioning effectively for optimal visualization of TEP.
4.3	Demonstrates proficiency in performing safe & appropriate tracheostoma care.
4.4	Identifies indications and contraindications for voice prosthesis change or initial voice prosthesis insertion.
4.5	Demonstrates proficiency in inserting sizer or sizer-dilator and measuring tracheoesophageal puncture length, including the use catheters and dilators to modify the puncture prior to insertion of sizer or sizer-dilator.
4.5	Uses topical anaesthetics and lubricants according to the applicable protocols and understands the potential adverse reactions and contraindications.



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4.6	Demonstrates proficiency in selecting type and style of voice prosthesis, including: • various types of voice prosthesis features such as diameter, length, flanges, resistance levels, insertion techniques, placement longevity and composition • how voice prosthesis features relate to client's needs (e.g., cost, dexterity, vision, caregiver factors) • manufacturer's instructions for insertion, removal, and cleaning of the voice prosthesis
4.7	Demonstrates proficiency in preparing the puncture and inserting the voice prosthesis, including: • safety measures to prevent aspiration of the prosthesis • use of catheters and dilators to modify the puncture prior to insertion of the voice prosthesis • use of the appropriate insertion technique for each available type of prosthesis, including troubleshooting strategies for varying puncture anatomy
4.8	Demonstrates proficiency in ensuring the voice prosthesis has been inserted correctly and is functioning correctly including: • appropriate testing procedures to identify proper fit and function of the voice prosthesis (e.g., fluent voicing, free rotation, no leakage) • factors that could interfere with voice prosthesis function
4.9	Demonstrates proficiency in checking for central and/or periprosthetic leakage including: • procedures used to determine site of leak • causes of and remedies for central and/or periprosthetic leakage
4.10	Demonstrates proficiency in checking for free rotation, including causes of, and remedies for resistance of voice prosthesis during rotation.
4.11	Completion of a minimum of 20 supervised voice prosthesis insertions (including 2 indwelling).
Objective 5	Patient education and teaching for voice prosthesis, tracheoesophageal puncture and tracheostoma care
5.1	Demonstrates proficiency in teaching the patient, family, caregivers, or other healthcare professionals, proper hygiene for maintenance of the voice prosthesis, stoma, and puncture including: • frequency of cleaning and the procedures for stoma care and voice prosthesis cleaning • effects of the biofilm on the prosthesis and methods for prevention and management



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5.2	Teaches patient, family, caregivers, or other healthcare professionals how to change the prosthesis, including: • use of effective lighting, insertion devices, lubricants, and adhesives • use of catheters or stents to facilitate insertion • risks associated with prosthesis removal and insertion (e.g., aspiration, bleeding) • safety measures to prevent aspiration of the prosthesis
5.3	Demonstrates proficiency in teaching the patient to phonate with the voice prosthesis, including: • behaviours that facilitate or are counterproductive to tracheoesophageal voice production • possible causes of blockage of shunted air from the lower respiratory tract to the esophagus for voice production
Objective 6	Demonstrates proficiency in understanding and managing problems arising from tissue changes related to TEP or stoma size, including: • TEP enlargement, collapse, closure, migration • edema • granulation tissue • stomal irritation • microstomia • fistulas • party wall separation • recurrence • false tract • infection • causes of blockage of shunted air from the lower respiratory tract to the esophagus for voice production • precautions to prevent changes in tissue • signs and symptoms of problems related to the TEP, tissue changes, stoma size, and potential management • when to refer to appropriate medical personnel
Objective 7	Selects patients as candidates for tracheostoma attachments correctly, including for adhesive peristomal housings and intraluminal devices
7.1	Demonstrates proficiency in understanding the advantages and disadvantages of placement of various attachments (i.e., laryngectomy tube, laryngectomy button, baseplate adhesive), including: • function, application, use and care of the various attachments • relationship between peristomal and intraluminal configurations and attachment retention • factors that contraindicate or complicate attachment retention • safety considerations and contraindications relating to use of tracheostoma attachments • biopsychosocial factors that impact successful use of various attachment devices



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Objective 8	Selects patients as candidates for Heat & Moisture Exchanger (HME) correctly
8.1	Demonstrates proficiency in understanding the advantages and disadvantages of HME, including: • function, application, use and care of the HME including airflow resistance of the various types • factors that contraindicate or complicate use of HME • biopsychosocial factors that impact successful use of HME
Objective 9	Selects patients as candidates for hands-free speech correctly
9.1	Demonstrates proficiency in understanding the advantages and disadvantages of placement of hands-free speech system including: • function, application, use and care of the hands-free speech system • relationship between various peristomal and intraluminal attachments and hands-free speech system • factors that contraindicate or complicate use of a hands-free speech system • biopsychosocial factors that impact successful use of a hands-free speech system
Objective 10	Performs tracheostoma attachment fittings, HME placement and hands-free speech system placement
10.1	Completes a minimum of two (2) observations of placement & removal for each of the following items (may be done via instructional video): • baseplate adhesive • intraluminal device • HME cartridge • hands-free system
10.2	Demonstrates proficiency in selecting the appropriate style and type of tracheostoma attachments including features of available attachments.
10.3	Demonstrates proficiency in placing and removing the various attachments to the peristomal and intraluminal tracheostoma area, including: • procedures used to prepare the peristomal and intraluminal areas • manufacturer instructions • alignment of the attachment with the stoma • attaching and removing the various attachments • ability to fenestrate a laryngectomy tube to make it compatible with voicing via tracheoesophageal voice prosthesis
10.4	Demonstrates proficiency in selecting the appropriate type of HME.



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10.5	Demonstrates proficiency in attaching and removing the HME to the various tracheostoma attachments.
10.6	Demonstrates proficiency in selecting the appropriate hands-free valve according to membrane strength based on client's needs.
10.7	Demonstrates proficiency in attaching and removing the hands-free speech system to the various tracheostoma attachments.
Objective 11	Teaches patient how to use the tracheostoma attachment, HME, and hands-free speech system
11.1	Explains all aspects of the attachment, HME, and hands-free speech system to the patient, family, caregivers, or other healthcare professionals, including: • procedures used to prepare the peristomal and intraluminal areas • manufacturer instructions • alignment of the attachment with the stoma • procedures for attachment and removal of each type of device • safety precautions when using the tracheostoma attachment, HME, and hands-free speech system, including methods to prevent tracheostoma attachment, HME, and hands-free speech system loss into the lower respiratory tract
11.2	Demonstrates proficiency in cleaning the tracheostoma attachment, HME, and hands-free speech system, including: • following manufacturer instructions • using adhesive solvents
Objective 12	Resolves problems related to seal and fit of tracheostoma attachment
12.1	Demonstrates proficiency in taking remedial action regarding the seal and fit of the attachment including the following methods: • reduction of airflow resistance in the prosthesis, the esophagus, and the pharyngoesophageal segment • management of poor retention of tracheostoma attachment • management of air leakage around tracheostoma attachment • use of adhesive materials to prolong seal of adhesive baseplate

Licensees are responsible for documenting learning interactions with patients and patient consent in accordance with the CHCPBC Ethics and Practice Standards.

References

[CHCPBC Bylaws, section 7](#)

[CHCPBC Ethics and Practice Standards](#)

[National Speech-Language Pathology Competency Profile](#)

Resource

[Practical Learning Log](#)