

**Critical Review:**

### Data Collection

The data search yielded five papers that fit in the abovementioned search criteria. The reviewed studies

Provox FreeHands HME



FreeHands HME<sup>®</sup>, which could be due to the increased pressure needed to close the hands-free valve.

- Complete and accurate information must be

These results have implications for S-LPs in clinical practice for the reason that clinicians must be aware of the available hands-free devices and their effects on individuals who use them. Gerwin and Culton (1993) suggest that tracheoesophageal prosthesis (TEP) success is greater when “patients are prepared, motivated, educated, and their psychological idiosyncrasies are attended to” (p. 438). It is necessary to continue with this research to provide individuals with the most accurate information possible. The idea behind using a hands-free mode of speech is shown to be of importance to laryngectomized individuals and therefore warrants further research into improving hands-free devices.

### ***Recommendations***

Future research should focus on the following in order to provide more compelling evidence:

- Clear identification and/or implementation of blinding procedures for examiners and subjects in order to increase the reliability of the results.
- Considering the small head and neck population, increasing sample size to implement more compelling evidence would be beneficial.
- Because of the uniqueness of this population, one might perform a single-subject design to increase experimental evidence and provide the most valid and clinically relevant results.
- Sufficient data regarding the procedure used must be included to allow the study to be replicated.
- Use of suitable questionnaires, along with identifying what these assessment measures are and indicating their validity and reliability.
- Further comparison of other brands of hands-free devices to the Provox FreeHands HME<sup>®</sup>.
- Many studies discussed neck seal as a major disadvantage to the Provox FreeHands HME<sup>®</sup>; further adjustment/development of the adhesion used in hands-free devices.
- More research needed for the effect of this device on QOL.

### ***Clinical Implications***

Although some of the results from the above studies are not in agreement, there are commonalities of clinical importance that clinicians should consider when providing options for this unique population.

- (2003). Development and clinical assessment of a heat and moisture exchanger with a multi-magnet automatic tracheostoma valve (Provox FreeHands HME®) for vocal and pulmonary rehabilitation after total laryngectomy. *Acta Oto Laryngologica*, 123(1), 91-99.
- Lorenz, K. J., Groll, K., Ackerstaff, A. H., Hilgers, F. J. M., & Maier, H. (2007). Hands-free speech after surgical voice rehabilitation with a Provox voice prosthesis: Experience with the Provox Freehands HME tracheostoma valve system®. *European Archives of Otorhinolaryngology*, 264(2), 151-157.
- Op de Coul, B. M. R., Ackerstaff, A. H., van As-Brooks, C. J., van den Hoogen, F. J. A., Meeuwis, C. A., Manni, J. J., & Hilgrers, F. J. M. (2005). Compliance, quality of life and quantitative voice quality aspects of hands-free speech. *Acta Oto-Laryngologica*, 125(6), 629-637.
- Sigh, K. R., De Cordova, J., Clarke, P., Harrington, K., & Rhys-Evans, P. (2005). A new self-administered questionnaire to determine patient experience with voice prosthese (Blom-Singer valves). *Journal of Postgraduate Medicine*, 51(4), 253-258.