TEP Insufflator

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Goals:

- To develop an insufflator that would eliminate manual work and avoid social stigma in laryngectomy patients

Significance:

- Over 3,000 people undergo laryngectomy every year in U.S.
- There is a substantial need to help them avoid discomfort and additional problems

Results:

- A working attachment was achieved
- Currently waiting on clinical trials

Fig. 1: Image of an uncovered stoma in a patient

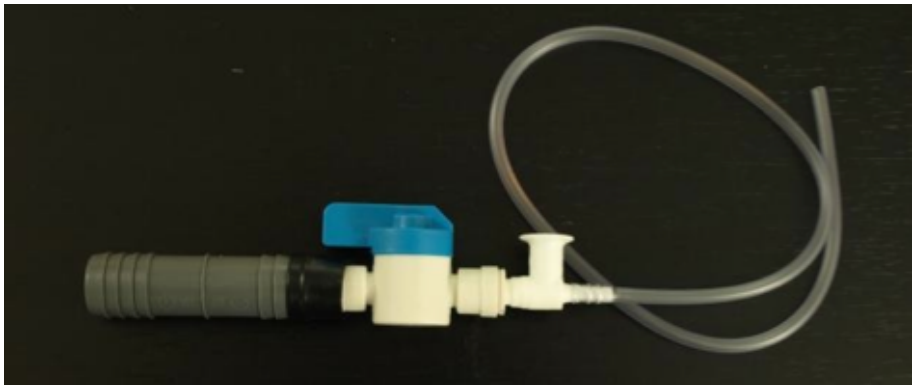
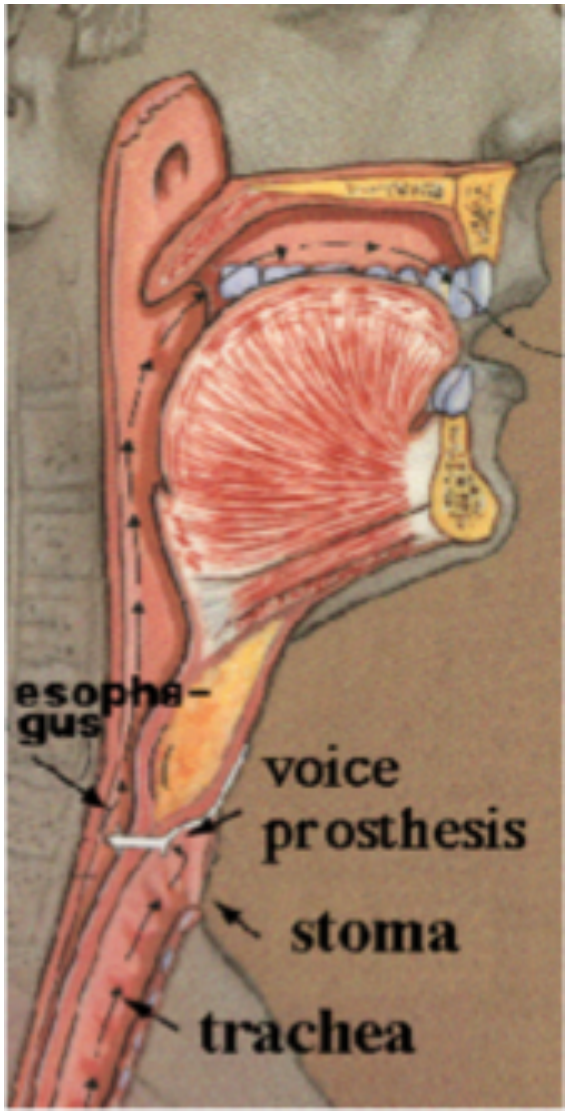


Fig. 2: Valve attachment that connects to CPAP machines

Background/Problem Definition

- Approximately 3,000 patients undergo laryngectomy annually in the U.S.
- Laryngectomy is the removal of the larynx – common in smokers or those with oral cancer
- General procedure calls for tracheostomy – a process where an incision is made in the patient's neck. This is called the stoma

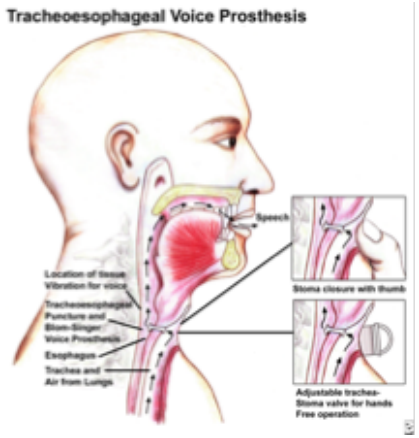


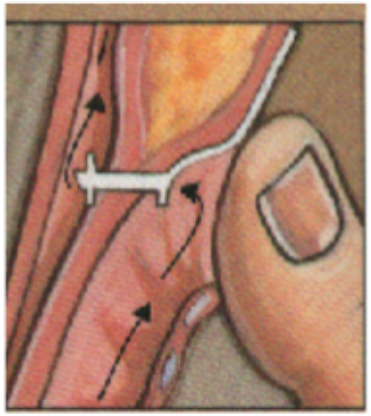
http://www.evmsent.org/trachesoph.asp

Project Overview

Goal: to develop a device that would enable tracheostomy patients to breathe/speak easier

Specifically, we aim to eliminate the need for the patient to cover his/her stoma with their thumb to speak for reasons mentioned earlier





http://emedicine.medscape.com/article/2145329-overview
http://www.evmsent.org/trachesoph.asp

CPAP Device

http://cdn.sleepreviewmag.com/sleeprev/2013/05/OmniLab_Advanced.jpg