

Pressure Equalization Tube Insertion Device: Collar Suction Adaptation

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ABOUT THE INVENTION

Each year, 1.05 million pressure equalization (PE) tubes are placed in the tympanic membranes of people living in the United States. The most commonly performed surgery in the U.S., pressure equalization of the middle ear allows patients to relieve pressure and other painful effects from fluid buildup. Currently, during the operation, the surgeon must cut an opening in the tympanic membrane, drain the excess fluid and then place the PE tube, all in different steps. This multi-step system causes unnecessary risk to the patient through the use of many instruments and also causes excessive operation time.

The current invention is a new system for PE tube placement that enhances the safety, speed and ease of the operation. The invention combines the placement of the PE tube with a suction device, allowing the final two steps of pressure equalization surgery to be combined with one instrument.

ADVANTAGES

The newly developed device:

- Allows contiguous suction and insertion
- Allows the surgeon a clear line of sight
- Allows the surgeon to “feel” the insertion
- Limits the amount of necessary instruments for the procedure
- Is compatible with 95 percent of PE tubes
- Can be created in disposable or reusable forms easily
- Can be integrated into current designs
- Limits operation time and prolonged anesthesia

Making use of this new device will allow doctors to book more surgeries and be more efficient, while reducing patient risk. This tool will have the capability of making a large impact on doctors and the two million individuals each year who suffer from fluid in the middle ear.