

Appliance Design

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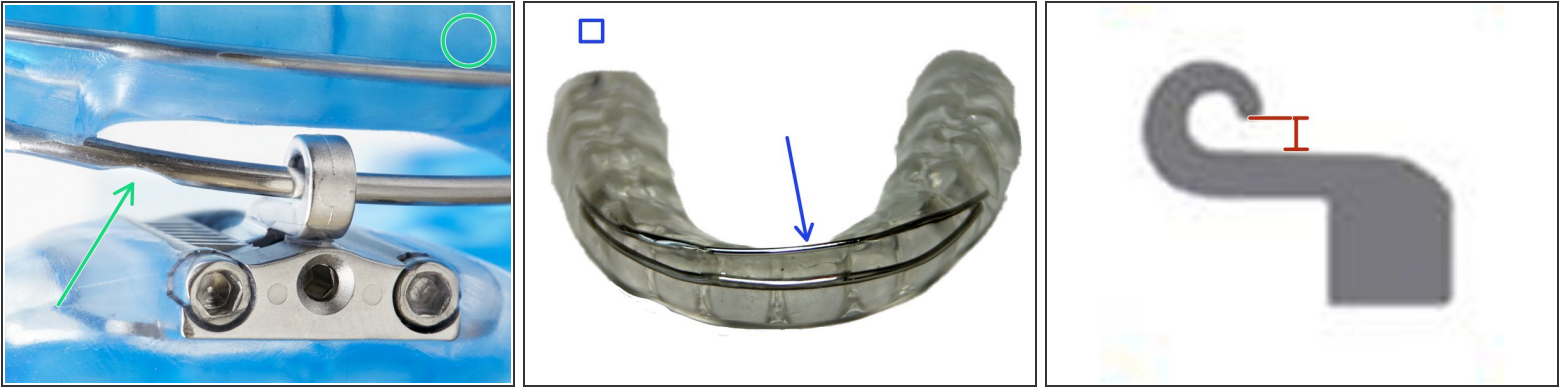


INTRODUCTION

Airway Management has several options to build the best appliance for your patient.

Pick the best options for your case...

Step 1 — Medicare or Quick Release



- The dreamTAP features two Cr-Co bars on the upper tray. They can be interchanged as prescribed by the clinician.
 - **Thin Bar:** approximately 0.8 mm in diameter.
 - **Thick Bar:** approximately 1.3 mm in diameter
 - **Hooks:** All the provided hooks are approximately 1.0 mm at the opening.
- **Medicare:** The Medicare option meets the Medicare rules by preventing the appliance from disengaging while wearing. Patient will need to insert/remove the appliance as one unit.
 - The lab will use the thick bar for engagement. Providing an engagement point laterally from the mid-line.
- **Quick Release:** The Quick Release option is for convenience and for claustrophobic patients. Patients can disengage the upper from the lower while wearing the device. They can also insert/remove the the device one arch at a time.
 - The lab will use the thin bar for engagement.

Step 2 — TL or ThermAcryl Trays



- Airway Management provides two tray options.
- **Triple Laminate (TL):** This tray features a hard poly-carbonate shell lined with a soft Urethane.
 - **Upside:** It seats quickly. The shell has some flexibility which allows it to "snap" over undercuts. Simple and quick.
 - **Downside:** The urethane liner cannot be added to. Need to be conservative on material removal. You can remove all the urethane and replace with ThermAcryl if needed.
- ⓘ Requires an accurate impression / model. Since adjustments are limited.
- **ThermAcryl:** This tray features a hard poly-carbonate shell lined with heat activated ThermAcryl material.
 - **Upside:** 100% of these cases fit the first time. Final fit is done in the chair when delivering. Great for short teeth / poor retention cases, as the material flows against 100% of the tooth structure with a good coefficient of friction. Great for future restoration plans, as material can be reheated and altered.
 - **Downside:** Takes longer to seat, because of the final fit requirement. *Liner material should be replaced yearly for best results long term.*

Step 3 — Posterior Stops



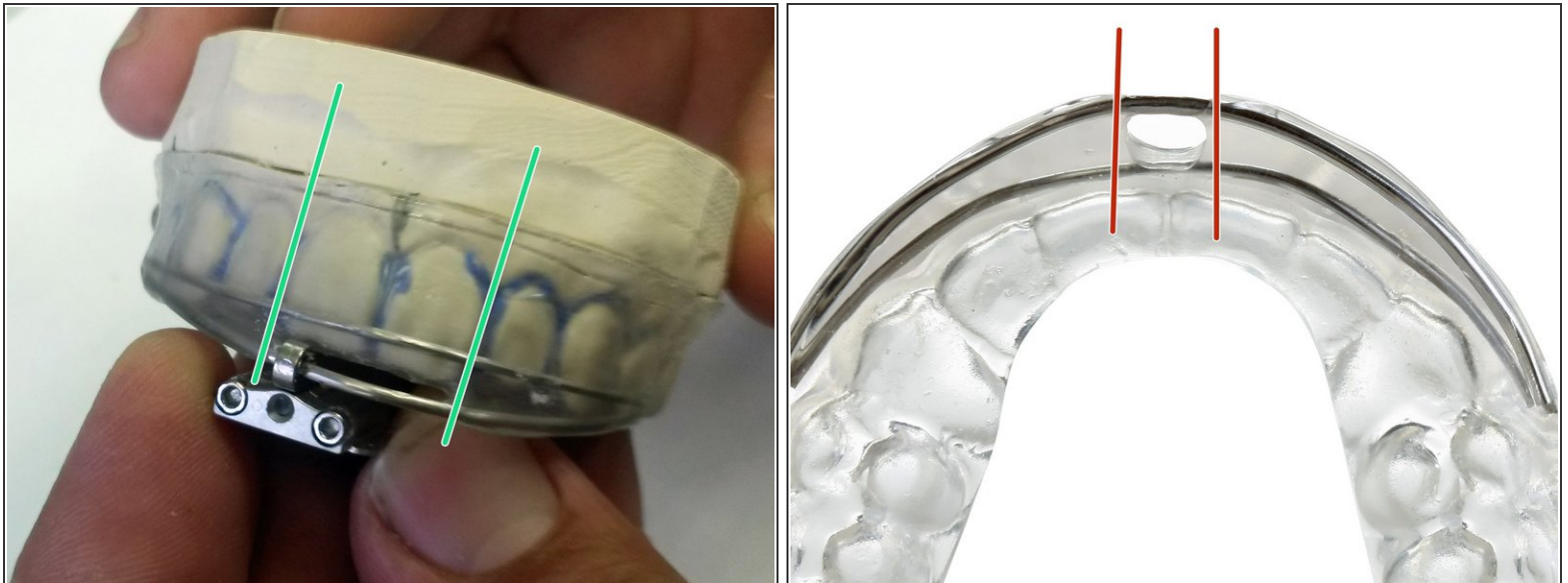
Christensen's Phenomenon

The creation of a space between the posterior teeth bilaterally *during protrusion or on the balancing side during lateral excursions*. Protrusive and laterotrusive interocclusal records register the gap produced by Christensen's Phenomenon. *The gap is caused by the incline of the temporal eminence.*



- Posterior Stops can be designed in the appliance. They can also be added in the chair during delivery.
- **Christensen's Phenomenon:** C. Christensen, Danish Dentist and Educator, documented this relationship. As the mandible is protruded a gap will occur in the posterior.
- With this understanding of the motion of the mandible, it is advised that final posterior stops be created upon reaching the optimum protrusion for the patient.
- ⓘ If you have the lab add posterior stops for the initial bite, be aware, you may need to add height, as protrusion is increased.

Step 4 — Lateral Excursion



- Lateral Excursion can be easily altered. We recommend a initial range of approximately 10 mm. This is shown in the image between the green bars. The technicians match the width of the centrals.
 - **Decrease the lateral range:** by simply adding acrylic or ThermAcryl between the bars. You can do this in your practice or ask you lab to assist.
 - **Increase the lateral range:** by simply removing acrylic between the bars with a hand piece and polishing.
- i** If you add the TAP PAP CS nasal pillow mask to the dreamTAP, we recommend you decrease the lateral range to approximately 4 mm. This will prevent the nasal pillows from being dislodged. [Here is a link to the guide for altering lateral excursion.](#)