

| Company | | Airway Management Inc | Dream Systems LLC | DynaFlex | | Glidewell Laboratories |
|---|------------------------|--|---|---|--|--|
| Appliance | |  dreamTAP |  OASYS with Nasal Dilators (Optional Tongue Repositioners) |  Milled Dorsal |  Milled Herbst |  Silent Night sl |
| Website | | www.tapintosleep.com | www.dreamsystemsdentallab.com | www.dynaflex.com | www.dynaflex.com | www.glidewell dental.com |
| Warranty (days) | | 365 | 365 | 1,095 | 1,095 | 180 |
| INDICATIONS | Mild to Moderate OSA | X | X | X | X | X |
| | Snoring | X | X | X | X | X |
| | Bruxism | | | | | |
| MATERIALS | Biocompatible Polymer | | X | | | X |
| | Cobalt-Chromium Alloys | X | X | | | |
| | Ethylene-Vinyl Acetate | | X | | | X |
| | Hard Acrylic | | X | X | X | |
| | Laminate | X | X | | | |
| | Thermal Acrylic | X | X | X | | X |
| | Other | | | | | |
| Medicare Compliant? | | unknown | | unknown | X | |
| How Does the Oral Appliance Work? | | The dreamTAP advances and stabilizes the jaw, preventing the tissues of the throat and tongue from collapsing into the airway. It is available with an optional compliance monitor chip. | The device repositions the mandible, the nasal dilators improve nasal breathing, and the tongue buttons improve tongue position. Removable bracket can be added for combination therapy with CPAP. | The forward advancement of the lower jaw of this mandibular advancement device helps to gain airway opening. | The DynaFlex Milled Herbst is a mandibular advancement device. The forward advancement of the lower jaw helps to gain airway opening. | Silent Nite sl works by positioning the lower jaw forward using S-shaped connectors that are attached to upper and lower trays, which increases the volumetric capacity of the airway. |
| Fitting Description | | All TAP custom products allow patients to fine-tune treatment at home, as well as work with the clinician. DreamTAP has a single point of midline adjustment, which prevents uneven bilateral adjustment. Initial protrusion is set during the fitting process and is easily modified. Three different hook sizes allow for a 15 mm range of adjustment with minimal hardware. Posterior stops may be added. | The Oasys upper splint is placed. The lower splint with anterior shield is seated. If combination therapy is required, the appliance is retrofitted to include a removable bracket. | After receiving a set of PVS or good working models, a custom fitted Dorsal is fabricated exactly to the bite registration that is provided by the dentist to the lab. The appliance is returned to the sleep practice, delivered to the patient, and adjusted by a qualified dental sleep clinician. | After receiving a set of PVS/digital/working models, a custom milled Herbst is fabricated exactly to the bite registration. The appliance is returned to the sleep practice, delivered to the patient, and adjusted by a qualified dental sleep clinician. | It is custom thermoformed in the laboratory from the patient's models. A bite registration taken with the Slide-Link protrusion gauge is used to determine protrusive position and align the device. |
| Adjustment Description | | Adjustment may be made by the patient with the appliance in the mouth in 1/3 mm increments. An anterior dial with one point of adjustment prevents unequal torque. The clinician teaches a home titration schedule. The dreamTAP may also be adjusted in a sleep lab by the sleep tech during a study. | The anterior shield is on a sliding/locking system, with mm guides. Pushing on the shield increases protrusion; pulling reduces. Finger adjustment is used for the nasal and lingual buttons. | The DynaFlex Dorsal has 6 mm of mandibular advancement built into the device. The adjustment ratio is 10:1. | The DynaFlex Milled Herbst has telescoping arms that can advance the mandible up to 5 mm. The advancements are made with a small key that is provided by DynaFlex. A single- or double-collar arm can be provided based on clinician preference. | Slide-Link connectors attach to the upper and lower trays. These connectors come in 6 lengths (21–26 mm) and are interchangeable by the patient if the lower jaw needs repositioning. |
| Connection Between Upper and Low Sections | | unknown | Not connected. | unknown | Connected with stainless steel telescoping arms. | Connected. |
| Peer-reviewed Study | | Hoekema A, Stegenga B, et al. Obstructive sleep apnea therapy. <i>J Dent Res.</i> 2008;87(9):882-7. | Shrivastava D, Bixby, JK, Livornese DS, et al. Efficacy of oral appliance therapy in the treatment of severe OSA in CPAP-resistant cases. <i>Sleep Vigilance.</i> 2018. https://doi.org/10.1007/s41782-018-0044-y | Not provided | Not provided | Not provided |

| Company | | Great Lakes Orthodontics Ltd | Luco Hybrid OSA Appliance Inc | OravanOSA | Oventus Medical | Panthera Dental |
|--|-------------------------------|---|---|--|--|--|
| Appliance | |  Telescopic Herbst Sleep Appliance in Hard Acrylic |  The Luco Hybrid OSA Appliance |  Oravan Herbst |  O ₂ Vent W |  Panthera D-SAD |
| Website | | www.greatlakesdentaltech.com | www.lucohybridosa.com | www.oravanososa.com | www.oventusmedical.com | www.pantherasleep.com |
| Warranty (days) | | 90 (metal); 730 (body) | 1,695 | 365 | 1,095 (mouthguard); 365 (polymer inserts) | 1,825 |
| INDICATIONS | Mild to Moderate OSA | X | X | X | X | X |
| | Snoring | X | X | X | X | X |
| | Bruxism | | X | | | |
| MATERIALS | Biocompatible Polymer | | unknown | | X | X |
| | Cobalt-Chromium Alloys | | X | | | |
| | Ethylene-Vinyl Acetate | | unknown | | | |
| | Hard Acrylic | X | unknown | X | | |
| | Laminate | | unknown | | | |
| | Thermal Acrylic | | unknown | | | |
| | Other | | | stainless steel | titanium (3-D printed airway) | |
| Medicare Compliant? | | X | | X | | |
| How Does the Oral Appliance Work? | | By repositioning and holding the mandible in a more protrusive position, it holds the tongue forward and the airway open. (The Herbst is a registered trademark of Dentaaurum Inc.) | Uses a patented forward bite to activate the masseter inhibitory reflex to treat sleep bruxism while managing OSA and UARS symptoms. The only FDA cleared treatment of sleep apnea with concurrent sleep bruxism. | The device opens the patient's airway through advancement of the mandible using an adjustable telescopic Herbst mechanism. Like the Oravan device, Oravan Herbst has a truly open anterior design, encouraging natural protrusion of the tongue. | The Slimline O ₂ Vent W uses an adjustable dual mechanism to stabilize jaw position and advance the mandible to reduce airway collapse, still enabling opening of the mouth. It allows for breathing through the device to bypass obstructions in the nose. Lips maintain a seal around the device extension. | Custom-made by computer, the D-SAD holds the lower jaw in a forward position, increasing the space behind the tongue, which facilitates airflow and eliminates snoring. The jaw advancement also prevents the obstruction responsible for OSA. Due to materials, it's ideal for heavy bruxers. |
| Fitting Description | | The standard hard acrylic snaps into place. When requested, retention clasps can be added. | No lingual acrylic to adjust; 2 ball clasps per sextant. Only 2 contacts of occlusion with the forward bite. | The Oravan Herbst is custom fitted to each patient by a dentist who takes impressions and bite registration. No anterior coverage means it will not interfere with anterior dental cosmetic work. | Custom fit by a dentist following his/her taking impressions and bite registration. Dental models are scanned and the design is 3D printed in titanium. Customized polymer inserts are added to top and bottom pieces and sent to dentist for patient delivery. | Compatible with intraoral scanning technology or regular dental impressions. Each case is designed on a proprietary software so retention can be adjusted individually. The D-SAD could be designed for horizontal protrusion as well as vertical. |
| Adjustment Description | | Small increments using advancement shims, or up to 5 mm with a 1 mm retrusion using telescopic hardware. | Titration is by 2 orthodontic screws that are turned with a key (wire). Adjustable in 0.25 mm adjustments up to 6 mm. | Insert the key into the adjustment mechanism located on the anterior mandibular component of the device. Can be advanced in small increments up to 5 mm. | A key on each side of the device provides up to 6 mm total protrusion, achievable in increments of 0.1 mm per turn of 90°. | A patented locking mechanism means rods can be replaced for titration. The rods will not disengage during sleep and will not elongate. Rods come in 0.5 mm increments and their lengths vary from 18 mm to 36 mm. |
| Connection Between Upper and Low Sections | | Yes, for the telescopic hardware design. (Other hardware options available that are not connected.) | Not connected | Connected | O ₂ Vent W: not connected but can be by adding hooks and elastics; O ₂ Vent T is connected. | Not connected |
| Peer-reviewed Study | | Not provided | Not provided | Sutherland K, et al; on behalf of the ORANGE Registry. Oral appliance treatment for obstructive sleep apnea: an update. <i>J Clin Sleep Med.</i> 2014;10(2):215-27. | Not provided | Not provided |

| Company | | ProSomnus Sleep Technologies | | Quiesco Health | SML-Space Maintainers Laboratories | SomnoMed | Whole You |
|--|-------------------------------|---|--|---|---|--|--|
| Appliance | |  |  ProSomnus [IA] Iterative Advancement Sleep and Snore Device with Monogram Customization |  The Silencer with Halstrom Hinge |  Clear Sleep Appliance |  SomnoDent Fusion |  Respire Blue EF+ |
| Website | | www.prosomnus.com | www.prosomnus.com | www.the-silencer.com | www.smlglobal.com | www.somnomed.com | www.wholeyou.com |
| Warranty (days) | | 1,095 | 1,095 | 1,825 (hinge); body warranty varies by dental lab | 365-730 (depending on material) | 1,095 | 365 |
| INDICATIONS | Mild to Moderate OSA | X | X | X | X | X | X |
| | Snoring | X | X | X | X | | X |
| | Bruxism | | | | | X | |
| MATERIALS | Biocompatible Polymer | | | | X | unknown | |
| | Cobalt-Chromium Alloys | | | | | unknown | X |
| | Ethylene-Vinyl Acetate | | | | | unknown | |
| | Hard Acrylic | X | X | X | X | X | X |
| | Laminate | | | | X | unknown | |
| | Thermal Acrylic | | | X | | unknown | |
| | Other | | | Ivoclar acrylic-elastomer | | | |
| Medicare Compliant? | | | | | | unknown | |
| How Does the Oral Appliance Work? | | ProSomnus [CA] advances the arch using a split 90° post with embedded expansion screw. Total available range of 12.0 mm, 11.0 mm for advancement and -1.0 mm retrusion from original bite position. | ProSomnus [IA] utilizes vertically mated buccal posts to advance and hold the mandible forward to open the airway. | Airway patency achieved through incremental advancement combined with vertical adjustability and lateral movement. | Two BPA-free trays allow for lateral movement and maximum room for the tongue while advancing the mandible forward. | It advances the mandible to open the airway and hold the jaw in position. | The Respire Blue EF+ maximizes tongue space by using a chrome material on lingual and anterior areas. Additional support with 4-wing design. |
| Fitting Description | | The dentist typically inserts and confirms the fit and comfort of each arch independently and then together. Patients are instructed to place the device arches in as a single unit. Experience fast insertion due to the accuracy of the digital design and precision manufactured process. | The dentist typically inserts and confirms the fit and comfort of each arch independently and then together. Patients are instructed to place the device arches in as a single unit. Experience fast insertion due to the accuracy of the digital design and precision manufactured process. | Standard. | The appliance is seated by placing the upper and lower portions together. First seat the upper portion, then guide the lower portion and seat with finger pressure. | The dentist will make a model of the patient's teeth and take a protrusive bite registration. | Place the upper piece in first, and then the lower. |
| Adjustment Description | | ProSomnus [CA] utilizes a continuous advancement protocol. The upper arch has a split 90° post with an adjustable expansion screw allowing for incremental adjustments from -1 mm to 5 mm. A lower advancement arch (L5) can be provided, which adds another 5 mm (or total advancement up to 11 mm). | Remove an arch and insert the next arch in the series of advancement arches. Combinations of arches add up to a new titration increment. No screws, mechanisms, or elastics required. Unlimited Advancement Arches can be ordered one at a time until satisfied. | Advancement through a range of 10 mm, adjustable in 1 mm increments. Vertically adjustable through changing connecting stylus pin. | The Clear Sleep provides up to 7 mm of advancement and uses a series of connector straps that can be interchanged to move the mandible forward in 1 mm increments. | The SomnoDent Fusion is advanced in 1 mm increments by changing the wings on the lower device or more precisely by adjusting the screw on the top device in 0.1 mm increments. Offers a 8.5 mm range of calibration. | The adjustment screw allows advancement up to 6 mm. |
| Connection Between Upper and Low Sections | | Not connected | Not connected | Connected | Connected | unknown | Not connected |
| Peer-reviewed Study | | Not provided | Hu J, et al. Case Report: The Micro ₂ Sleep Device. <i>DSP</i> . Summer 2015:24-7. Remmers JE, et al. Clinical study: a feedback-controlled mandibular positioner identifies individuals with sleep apnea who will respond to oral appliance therapy. <i>J Clin Sleep Med</i> . 2017;13(7). | Raphaelson MA, et al. Oral appliance therapy for obstructive sleep apnea syndrome: progressive mandibular advancement during polysomnography. <i>Cranio</i> . 1998:16(1). | Not provided | SomnoMed SomnoDent Fusion Obstructive Sleep Apnea Device. <i>Dental Product Shopper</i> . 2015;9(6):72-3. | Not provided |

Information for this guide based on data submitted by product manufacturers. Sleep Review strives for accuracy in all data but cannot be held responsible for claims made by manufacturers. All custom oral appliances may not be included. E-mail sry@medqor.com to be considered for the next update.