

















CATEGORY SPONSORED BY OVENTUS





Oventus is an Australian medical device company with a proprietary technology for the treatment of obstructive sleep apnea (OSA) and snoring. The **O2Vent Optima**® oral device is designed for any patient that is deemed appropriate for oral appliance therapy, but especially beneficial for those suffering nasal congestion, obstruction, and mouth breathing. The O2Vent's unique integrated airway allows for airflow to the back of the throat and promotes airway stability by expanding the velopharynx, reducing soft palate collapse and, in the presence of nasal obstruction, provides a conduit to manage mouth breathing.

ORAL APPLIANCES, CUSTOM





Company	Oventus Medical	Airway Management Inc	Apex	Dream Systems Dental Sleep Lab
Appliance	 O2Vent Optima	 dreamTAP w/ AccuTherm	 Kava Dorsal	 OASYS Oral / Nasal Airway System (Optional Tongue Repositioning Buttons)
Website	www.o2vent.com	www.tapintosleep.com	www.apexsleep.com	www.dreamsystemdentallab.com
Warranty (days)	1,095	365 or optional extended 1,095	730	365
INDICATIONS	Mild-Moderate OSA	Yes	Yes	Yes
	Snoring	Yes	Yes	Yes
	Bruxism	No	No	No
MATERIALS	Biocompatible Polymer	Yes	No	Yes
	Cobalt-Chromium Alloys	No	Yes	Yes
	Ethylene-Vinyl Acetate	No	No	No
	Hard Acrylic	No	No	Yes
	Laminate	No	Yes	Yes
	Thermal Acrylic	No	Yes	Yes
	Other			gluten-free acrylic
PDAC Verified	Yes	Yes	No	Yes (Hinge only)
How Does the Oral Appliance Work?	Removable bands allow for mandibular advancement in 1 mm increments. The addition of an integrated airway promotes airway stability by expanding the velopharynx, reducing soft palate collapse and, in the presence of nasal obstruction, provides a conduit to manage mouth breathing.	DreamTAP w/ AccuTherm advances and stabilizes the jaw, preventing the tissues of the tongue and airway from collapsing. It corrects any slight tray imperfections during the patient's visit using only warm water.	Kava Dorsal utilizes a mandibular advancement dorsal screw mechanism.	OASYS Simplicity is a mandibular advancement with the labial shield. The Standard OASYS with Nasal Dilators improves nasal breathing and repositions the tongue with tongue buttons.
Fitting Description	3D printed to be tailored to the individual following physical or digital intraoral impressions and bite registration. Dental models scanned and the device and protrusive position designed based on bite registration.	DreamTAP w/ AccuTherm has returned to custom-made devices from models. The AccuTherm liner allows a fit for every patient. The appliances use a single point of midline adjustment to prevent uneven bilateral adjustment. It includes 3 hook sizes that allow for a 15 mm range of adjustment with minimal hardware. Posterior stops, mouthshield, and vertical hooks available.	The Kava Dorsal is seated by gently placing the upper arch first, then seating the lower arch in the patient's mouth. Adjust the ball clasp if necessary to properly seat and secure the appliance in place. Engage the dorsal fins to the Kava advancement screw by bringing the lower jaw forward and gently closing down. Check occlusion for desired occlusal contacts.	Upper clear cushion seated first. Lower splint with anterior labial repositioning shield is placed next. Scale tracks adjustments in 1 mm increments, using the OASYS Wrench for mandibular positioning
Adjustment Description	Connector bands attach to custom placed lugs on each side of the upper and lower trays. Adjustable bands in 9 lengths (13-21 mm) allow for 6 mm protrusion, 2 mm retrusion, in increments of 1 mm.	Adjustments are made by the patient with the appliance in the mouth in 1/4 mm increments using an adjustment key. The clinician teaches a home titration schedule. DreamTAP can also be adjusted during a sleep study by a sleep tech.	Adjusted using an advancement screw and key. The advancement screw can be activated by turning both the left and the right screw in the same upward direction. Each 90° activation advances the mandible. 10 activations will advance the mandible 1 mm with a maximum of 70 turns (7 mm) advancement.	The anterior labial shield is on a sliding lock system. Pushing the shield advances the mandible; pulling retrudes. Adjustment 8 -15 mm. Finger adjustment on the nasal dilators and tongue buttons.
Upper-Lower Connection	Connected.	Connected by hardware during use.	Not connected.	Not connected.
Supporting Study	Lavery D., Szollosi I, Czyniecki S, et al. Safety and efficacy of a novel oral appliance in the treatment of obstructive sleep apnea. <i>JDSM</i> . 2017;4(3); 57-63.	Hoekema A, Stegenga B, et al. Obstructive sleep apnea therapy. <i>J Dent Res</i> . 2008;87(9):882-7. More studies at tapintosleep.com dentist/peer-reviewed-studies.	Not provided.	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.

Company	DynaFlex	DynaFlex	Glidewell	Great Lakes Dental Technologies	Luco Hybrid OSA Inc
Appliance	 Milled Dorsal	 Milled Herbst	 Silent Nite Sleep Appliance	 Telescopic Herbst Sleep Appliance in Hard Acrylic	 The Luco Hybrid OSA Appliance
Website	www.dynaflex.com	www.dynaflex.com	glidewell dental.com/silent-nite	www.greatlakesdentaltech.com	www.lucohybridosa.com
Warranty (days)	1,095	1,095	730	90 (metal); 730 (body)	1,695
INDICATIONS	Mild-Moderate OSA	Yes	Yes	Yes	Yes
	Snoring	Yes	Yes	Yes	Yes
	Bruxism	No	No	No	Yes
MATERIALS	Biocompatible Polymer	No	No	Yes	No
	Cobalt-Chromium Alloys	No	No	No	Yes
	Ethylene-Vinyl Acetate	No	No	Yes	No
	Hard Acrylic	Yes	Yes	No	Yes
	Laminate	No	No	No	No
	Thermal Acrylic	No	No	Yes	No
	Other				
PDAC Verified	No	Yes	No	No	No
How Does the Oral Appliance Work?	The forward advancement of the lower jaw of this mandibular advancement device helps to gain airway opening.	The forward advancement of the lower jaw helps to gain airway opening.	Mandibular advancement appliance. Connectors on right and left buccal side will pull the mandible in protrusion to open up the airway. 6 adjustable settings.	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.
Fitting Description	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.	Both upper and lower trays will be tugging on each other to get adequate mandibular advancement, so it needs to be snug and not too passive.	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.
Adjustment Description	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.	May need to switch out the 6 different connectors to get ample advancement of the mandible to open the airway.	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.
Upper-Lower Connection	Not connected.	Connected with stainless steel telescoping arms.	Connected.	Connected (telescopic hardware); others not.	Not connected.
Supporting Study	Not provided.	Not provided.	Borrie F, Keightley A, Blacker S, Serrant P. Mandibular advancement appliances for treating sleep apnoea/hypopnoea syndrome. <i>Evid Based Dent.</i> 2013 Mar;14(1):27-8.	Not provided.	Not provided.

Company	OravanOSA	Panthera Dental	ProSomnus Sleep Technologies	ProSomnus Sleep Technologies	ProSomnus Sleep Technologies
Appliance	 Oravan Herbst	 Panthera D-SAD	 ProSomnus [IA] Iterative Advancement Sleep and Snore Device	 ProSomnus [CA] LP Continuous Advancement Sleep and Snore Device	 ProSomnus [PH] Precision Herbst Style Sleep and Snore Device
Website	www.oravanososa.com	www.pantherasleep.com	www.prosomnus.com	www.prosomnus.com	www.prosomnus.com
Warranty (days)	365	1,095	1,095	1,095	1,095; 1,825 (Medicare patients)
INDICATIONS	Mild-Moderate OSA	Yes	Yes	Yes	Yes
	Snoring	Yes	Yes	Yes	Yes
	Bruxism	No	No	No	No
MATERIALS	Biocompatible Polymer	No	Yes	No	No
	Cobalt-Chromium Alloys	No	No	No	No
	Ethylene-Vinyl Acetate	No	No	No	No
	Hard Acrylic	No	No	No	No
	Laminate	Yes	No	No	No
	Thermal Acrylic	No	No	No	No
	Other	stainless steel		control-cured polymethylmethacrylate	control-cured polymethylmethacrylate
PDAC Verified	Yes	No	No	No	Yes
How Does the Oral Appliance Work?	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.	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.	ProSomnus [IA] utilizes vertically mated buccal posts to advance and hold the mandible forward to open the airway.	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.	The ProSomnus [PH] uses a continuous advancement protocol. Upper arch connects via Herbst Arm to lower arch with an adjustment nut.
Fitting Description	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.	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.	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 manufacturing.	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 manufacturing.	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 manufacturing.
Adjustment Description	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 patented locking mechanism means rods can be replaced for titration. The new 3.0 Rod Pack includes 20 pairs of rods in 0.5 mm increments and lengths from 16 mm to 34 mm. The rods will not disengage during sleep nor elongate.	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 Archers can be ordered one at a time until satisfied.	Includes 1 upper [CA] LP arch; 1 lower (LO) arch; 1 lower (L3) arch; linguless anterior coverage; full posterior coverage; tapered posts; flat plane splint design with lingual and labial anatomical scalloping. Device starting position is set at bite when delivered. When the advancement is completed using the initial upper [CA] LP arch, the patient can swap in the lower (L3) arch. Note: Both the ProSomnus [CA] and [CA] LP Sleep and Snore Devices can be adjusted within a 12.0 mm total titration range.	Uses a continuous advancement protocol. Upper arch connects via a Herbst Arm to the lower arch with an adjustment nut allowing for small incremental adjustments in a range from -1.0 mm to 6.0 mm.
Upper-Lower Connection	Connected.	Connected.	Not connected.	Not connected.	Connected.
Supporting Study	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	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>JCSM.</i> 2017;13(7). Vranjes N, et al. Assessment of potential tooth movement and bite changes with a hard-acrylic sleep appliance: A 2-year clinical study. <i>JDSM.</i> 2019;6(2)	Seltzer N, et al. Case report: Using a precision milled, continuous advancement, oral appliance with symmetric titration to treat all severity levels of obstructive sleep apnea. <i>DSP.</i> Spring 2019;22-4.	Not provided.

Company	Quiesco Health	SICAT GmbH & Co KG	SML-Space Maintainers Laboratories	SomnoMed Inc
Appliance	 The Silencer with Halstrom Hinge	 OPTISLEEP	 Clear Sleep Appliance	 SomnoDent Avant
Website	the-silencer.com	www.optisleep.com	www.smlglobal.com	www.somnomed.com
Warranty (days)	1,825 (hinge); body varies	730	365-730	1,095
INDICATIONS	Mild-Moderate OSA	Yes	Yes	Yes
	Snoring	Yes	Yes	Yes
	Bruxism	No	No	No
MATERIALS	Biocompatible Polymer	No	Yes	Yes
	Cobalt-Chromium Alloys	No	No	No
	Ethylene-Vinyl Acetate	No	No	No
	Hard Acrylic	Yes	Yes	Yes
	Laminate	No	No	Yes
	Thermal Acrylic	Yes	No	No
	Other	ivocap acrylic-elastomer		
PDAC Verified	No	No	No	No
How Does the Oral Appliance Work?	Airway patency achieved through incremental advancement combined with vertical adjustability and lateral movement.	The airway is kept open by protrusion of the mandible with a 2-part appliance. It allows for lateral movement and mouth opening.	Two BPA-free trays allow for lateral movement and maximum room for the tongue while advancing the mandible forward.	The device functions as a mandibular repositioner, which acts to increase the patient's pharyngeal space during sleep.
Fitting Description	Standard.	The dentist inserts the OPTISLEEP and confirms fit, comfort, and mandible position.	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 device consists of two trays customized to fit over the upper and lower teeth, and the lower tray is held in a protrusive position by an advancement mechanism consisting of a strap attached to an upper anterior guide and two lower fixing elements.
Adjustment Description	Advancement through a range of 10 mm, adjustable in 1 mm increments. Vertically adjustable through changing connecting stylus pin.	Adjustments are done by changing the connectors, which are provided together with the OPTISLEEP. There are 10 pairs in total, providing an incremental range from 1.0 mm to 10.0 mm.	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.	SomnoDent Avant is adjusted by switching out the strap for another strap with a different length.
Upper-Lower Connection	Connected.	Connected.	Connected.	Connection of the upper and lower tray by a strap attached to an upper anterior guide; adjustable with a range, by increments of 1 mm, from - 1.0 mm to +8.0 mm; design features both lateral movement and vertical opening.
Supporting Study	Raphaelson MA, et al. Oral appliance therapy for obstructive sleep apnea syndrome: progressive mandibular advancement during polysomnography. <i>Cranio</i> . 1998;16(1):44-50.	Not provided.	Not provided.	Not provided.



Tomed GmbH	Tomed GmbH	True Function Laboratory	Whole You
			
SomnoGuard AP Pro	SomnoGuard SP Pro	TrueDorsal	Respire Pink Micro
www.tomed.com	www.tomed.com	www.truefunction.com	www.wholeyou.com
730; body varies	730; body varies	730	365
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	No	No	No
No	Yes	No	No
No	No	No	No
No	No	Yes	No
Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes
No	No		No
stainless steel	stainless steel	milled PMMA	
No	No	No	No
2-piece, adjustable mandibular advancement device. The part with the guide bar ("C-bar") characterizes the upper tray designed for the upper jaw. The C-bar is the track for the screw head of the lower tray and allows a lateral movement of the lower jaw. The device repositions the lower jaw forward and so prevents the collapse of the upper airway.	A 2-piece, adjustable mandibular advancement device with a connector on each side, it repositions the lower jaw forward and so prevents collapse of the upper airway.	The upper splint has bilateral adjustable components made with orthodontic expansion screws that engage with the lower splint to advance the mandible.	With shorter Herbst arms, the Respire Pink Micro increases comfort due to its smaller size. It minimizes contact of the hinge on the lip area and reduces irritation on cheeks. A thin chrome framework version is also available.
Dental impression of the upper and lower jaw. Construction bite registration and definition of the initial protrusion for the lower jaw. For the thermoforming technique, thermoforming discs with a thickness of about 2 mm and a pressure forming unit are necessary. The lower tray attachment with the screw housing is fixed to the underside of the lower tray. The upper tray attachment with the C-bar is fixed to the upper tray. The upper and lower jaw trays are connected to each other with an adjusting screw.	Dental impression of the upper and lower jaw. Construction bite registration and definition of the initial protrusion for the lower jaw. For the thermoforming technique, thermoforming discs with a thickness of ~2 mm and a pressure forming unit are necessary. The attachment points for the metal knobs and wires are in the lower jaw in the molar region and in the upper jaw in the canine region.	Place the upper tray in the patient's mouth and press it up into place with your thumbs. Place the lower tray into the patient's mouth and press down both sides using index fingers to ensure the fit on the teeth. Once both trays are securely positioned, engage the fins by bringing the lower jaw forward. Removal: Remove the lower tray by using your thumbs to pull the tray up and out. Using thumbs and index fingers, pull upper tray down and out.	Place upper component (marked with both arrows on the side of the device) onto upper teeth by hand. Press up to ensure plate is seated securely and fits comfortably. Place lower component onto lower teeth by hand. Press down on both sides to ensure plate is seated securely and fits comfortably. Close the mouth once the upper and lower components are seated firmly. Ensure device's flat planes are in even contact throughout the arch.
By turning the adjusting screw with the adjusting tool, a lower jaw advancement of 0 to approx. 10 mm can be infinitely adjusted (depending on the length of the screw used: 12, 16, or 20 mm). Thereafter a locknut is fixed against the screw housing.	Two connectors of equal length connect the upper with the lower jaw tray. The lower jaw advancement can be infinitely adjusted from ~-3 to +7 mm (and more) by turning the screws between the connectors with the spanner. Connectors without screw in different sizes are also available.	The dentist can advance the TrueDorsal using the orthodontic expansion key enclosed with the device. A patient can also advance the device, if needed, under the care of the dentist. Full 360° turn 0.8 mm. ¼ turn (every time a new hole appears) = 0.2 mm. Maximum advancement is = 6 mm.	The micro arm will advance up to 3 mm. For further titration, unscrew the fixing element on the upper device using the hex key, turn the adjustable component on the Herbst arm back to the starting point (zero turns). Using the key, connect the Herbst arm to the anterior fixing element on the upper device for up to additional 3 mm of advancement. Maximum protrusion is 3 mm = 48 quarter turns. Do not titrate over 3 mm.
Connected.	Connected.	Not connected.	Connected.
Not provided.	Not provided.	Not provided	Not provided ●