Allesee Orthodontic Appliances

Your Lab of Choice ... from Start to Finish
Dear Doctor:

For more than 35 years, AOA has set the standard in providing the profession with a full range of custom-crafted appliances essential to the success of their practices. We are honored to serve you and welcome the opportunity to continue meeting your laboratory requirements.

AOA’s senior management and technical team produces not only top quality appliances that are returned to you in a timely fashion for a fair and competitive price, but also continues to teach and cross-train our associates the intricate details of manufacturing your appliances. AOA’s mission will never change and we will always strive to exceed your expectations.

AOA’s state-of-the-art Centralized Communication Center provides accurate and actionable user support for all inquiries in a professional manner. For maximum convenience, we have three manufacturing locations: Sturtevant, Wisconsin; Enfield, Connecticut; and Calexico, California. You may contact the Center at 800.262.5221 from 7 a.m. until 6 p.m. CST.

AOA has a rich history innovating many orthodontic appliances that are now commonplace in the profession. Through our comprehensive product line, commitment to the success of your practice and dedication to the advancement of the profession, AOA will continue to assist you in setting new standards of excellence every day you practice.

Thank you for trusting AOA laboratory for your practice and patients.

Sincerely yours,

David Allesee
President, AOA
Simpli5

AOA’s Simpli5 is an express aligner system that provides a fast, effective and simple solution to minor and moderate anterior misalignments. The patient wears five appliances per arch that are programmed with incremental correction to move the teeth to their desired end result. There’s one simple-and-attractive fee per arch (upper and lower), which allows you to quote the right treatment cost to your patients.

Every Simpli5 treatment can be supplemented with two “refinement” aligners if needed to fine tune the final results. In this instance, you’ll just forward the original set-up models and new impressions to our customer service department.*

*Extra charge for refinement appliances.

Breathe Easy™ Sleep - Snoring

Obstructive sleep apnea (OSA) can be treated in many patients with the use of a removable dental appliance. The most common approach is the forward positioning of the mandible to a “Class III” type relationship to the upper jaw. AOA’s appliances offer a range of options - all removable. Appliances can be mechanically attached between upper and lower arches, or as a single unit. All appliances require a healthy dental environment but can be modified in material choices to accommodate various considerations such as under-cuts and potential periodontal problem.

The cause of snoring may be a serious medical consideration and it is advisable that all complaints be referred to the patient’s physician for evaluation before dental intervention is considered or initiated.

Suggested Reading Material


800.262.5221

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AdvanSync™ represents a breakthrough in functional appliances that makes it possible to treat Class II cases in Class one time. AdvanSync™ produces stable orthopedic changes while it advances the mandible to a Class I occlusion in just six to nine months. This occurs while the patient has brackets placed upper and lower 2nd bicuspid to 2nd bicuspid. AdvanSync™’s arms are 50% shorter than arms used in Herbst® appliances, minimizing mouth discomfort. Unlike removable appliances, AdvanSync™ does not create speech problems and patients adjust to it very quickly. AdvanSync™ is ideal for patients in mixed or permanent dentition. AdvanSync™ was developed in collaboration with one of the world’s leading Class II authorities, Dr. Terry Dischinger. AOA is the only lab licensed to produce the custom AdvanSync™ Molar to Molar series.

The use of the “fixed functional” appliance continues to grow as witnessed by the many new designs of Herbst® type appliances. Now AOA offers an updated telescope design called the MiniScope™ Herbst®.

There are several significant advantages to this design. First, the mechanism is a self-contained telescope that cannot disengage when the patients open wide, unlike the traditional Herbst® which comes apart. This potentially reduces emergency appointments. Another major advantage of the MiniScope™ is the doctor’s ability to better position the lower pivots (attachments) near the lower second bicuspid instead of the first bicuspid. By moving the lower pivot distally a full tooth position, the tissue is much less prone to irritation and the patient settles into the appliances more readily.

With a telescoping mechanism, the lower pivot can be positioned near the second bicuspid and the upper pivot can also be placed at the center of the crown (or reinforced band). This aids tremendously during the insertion and adjustment appointments in gaining access to the hex head screw, which secures the mechanism in place. In addition to the MiniScope™ Herbst®, we offer the hex head screw called the AppleCore®, which connects the telescoping mechanism to the cantilever bar and the upper molar crown or band. The AppleCore® screw improves upon the restricted lateral movement of a standard Herbst® pivot due to its curved inner radius. Not only does the curved inner radius offer more lateral freedom for the excursion of the bite, but it reduces stress on the overall appliances that we believe will reduce appliance breakage.

AOA has over twenty years of Herbst® fabrication experience, producing thousands of Herbst® annually. You can count on AOA for every design and every mechanism.

AdvanSync™ Class II Molar to Molar

Miniscope™ Herbst®

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Herbst® is a federally registered trademark of Dentaurum, Inc.

MiniScope™ and AppleCore® are registered trademarks of Specialty Appliances.
How a MARA® Appliance works

MARA® (Mandibular Anterior Repositioning Appliance) is a simple and durable Class II corrector. The appliance is attached to the patient’s first molars (or in very young patients, the deciduous second molars) with stainless steel crowns. Heavy-duty or Rollo bands may also be used. The advantage of a “noncompliance” approach to Class II correction is reliability and shortened treatment time.

The upper “elbows” are removable, allowing the clinician to make adjustments for further bilateral or unilateral advancement in skeletal midline asymmetry cases. Patients generally adapt to the MARA® in a few days and sore spots are minimal. The lower “arms” are permanently attached.

Upper and lower archwire tubes with hooks are standard features, allowing the clinician the option of using fixed mechanics during MARA® therapy. A lower lingual arch is also a standard element of the appliance. Other popular options include an upper Transpalatal Bow (TPA), and a variety of palatal expansion screws and expansion devices. An accessory kit of parts is available, which includes advancement spacers, extra elbows, and a torque tool to aid in adjusting the elbow if required.

The smaller size of the appliance increases comfort and aesthetic appeal for patients.

Distalizers

It is now possible to distalize maxillary first and second molars and retain the results with one appliance. The Distal Jet™ is a fixed lingual appliance that can produce unilateral or bilateral molar distalization and rotation corrections, usually in four to nine months, without patient compliance. Nickel-titanium coil springs (240g) provide forces for predictable results. The springs are driven by a unique set screw activation lock. After molars are distalized the Distal Jet™ can be converted into a Nance holding arch with a few easy adjustments - without removing the appliance (180g springs are available upon request).

Limited expansion can be introduced with the addition of an expansion screw to the acrylic button. If significant expansion is required, the use of a palatal expander prior to molar distalization is recommended.

The Mambo Jet uses a “sistered” tube to compress the spring while the screw/tube combination slides easily along a heavy wire parallel to the director tube. The set screw is tightened onto the wire with simply no chance of over-activating. The spring is compressed and the Jet slides without friction. This modification is available with all Distal Jet™ and Spring Jet appliances.

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The custom AOB Intrusion Splint is patient specific in design and made by laminating a special pressure formed plastic base with orthodontic acrylic. Two transpalatal wires connect the right and left quadrants for stability, preventing buccal flaring during treatment. Typically four “ball-hooks” are provided on each buccal segment for choice in force application.

What to send to AOA for construction: Upper and lower stone or orthodontic plaster models... or PVS impressions. The construction bite should be included reflecting a minimal opening of 2 mm between the 1st molars. Our goal is to provide the thinnest, most durable comfortable splint possible based on the patient’s specific requirements.

If the patient is currently bracketed you may choose to retain the brackets and AOA will carefully fabricate the splint to accommodate the appliances. Just comment on the fx form that you wish to retain the brackets. Splints made for patients without posterior brackets include archwire tubes as illustrated in the images below.

The AOB Retainer designed for use after intrusion is removable and includes habit screen, labial bow, hooks for spring attachment for clasp ing if requested.

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AOB Appliances

Temporary Anchorage Devices

In the current orthodontic market, the use of Temporary Anchorage Devices has dramatically increased in comparison to the use of TAD’s just 5 years ago. It has become an expected option within most residency programs, and another great tool in offices around the world.

As increasing numbers of Doctors purchase TAD systems the demand for additional applications has also risen. Due to this demand, AOA has responded with a focus to incorporate the use of TAD’s into many of our standard custom appliances. In doing so, many doctors have requested personal designs, creative ideas, as well as, new appliances that have added to the list of TAD applications in the industry.

Not only does AOA encourage you to explore some of the common TAD, custom appliances, such as the CIII Jet, or the Smith Molar Protractor, we would further appreciate that if you have an idea that you have not seen from us using TAD’s, please feel free to draw and describe it on one of AOA’s RX forms and send it in. We will be happy to customize your appliance to your preferred mechanics as well as the patient’s needs.

The AOA TAD appliances can be designed to work universally with any TAD system.
Light Choice Arch Development

Light Choice appliances are designed to deliver light force when phase one expansion is required. From special open coil springs to titanium alloys, AOA has the right appliance for your patient.

If the upper arch requires an additional expansion assistance, AOA has several low force options. These include the spring jet and specially designed wire expanders utilizing today's unique alloys, as well as traditional stainless steel. Each expander is designed to be patient specific and deliver low consistent force.

Fixed RPE'S

Rapid Palatal Expanders from AOA are available in banded, stainless steel crown, acrylic, or vinyl pressure-formed styles. The traditional banded appliance requires bands properly seated on molars or molars and first bicuspids. The "modified" design, with bands on only the molars, is the optimal design for patients with mixed dentition. AOA can provide and seat either bands or crowns.

A variety of screw assemblies are available from AOA. Our standard 11 mm double-guide pin unit is provided unless an alternative style is requested. If the Haas RPE is requested, a 10 mm acrylic-borne expansion screw is provided. Popular alternatives include the AOA mini and Snap-Lock ratchet expander, both of which are applicable for lower fixed expansion.

Adjuncts can be added for a wide variety of therapeutic purposes. These include reverse-pull facemask hooks, archwire tubes, habit cribs, and debonding aids (with bonded appliances). Custom colors are also available for our acrylic bonded expanders.

With our fixed expanders, you will receive your choice of activation keys; either the safety strap by request or swivel stick key which comes standard. You will also receive a reminder card indicating the total expansion capability and number of activation turns.

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Removable Functionals

AOA can provide virtually all of today’s popular functional appliance designs, from the two arch designs to the single arch active plates. Special attention is critical for coordination of the arches for the role acrylic plays in the eruption dynamics and growth modification. Our technical staff is trained to understand the important relationship of construction bites and model articulation in order to obtain the maximum potential benefits of “Functional Appliances.”

Expansion screws in many variations are available including Ni-Ti® spring enhanced screws for less rigid but consistent force.

AOA custom art acrylic designs are an essential part of patient cooperation. Just refer to our Acrylic Color Chart for ideas and choices.

Customer Technical Support is key for successful and consistent functional appliance service. AOA has specialists on hand to help your office with all appliance design issues. Please send us a wax bite reflecting advancement and vertical opening needed.

Labial Indirect Bonding

Adding indirect bonding to your routine makes the best use of technological advances in today’s bracket and archwire systems. Labial indirect bonding offers you efficiency in initial bracket placement while also decreasing chair time and reducing bond failures. Posterior bracket placement is especially enhanced with better positioning and more dependable bond strength.

AOA’s indirect bonding service is designed to consistently provide you with accurate placement and successful transfer of brackets en masse to the patient’s teeth using a variety of bracket systems and adhesives along with moisture-tolerant sealants. AOA uses a custom composite pad on the bracket base to ensure a contoured fit against each tooth. The clear two-tray delivery system is compatible with today’s advanced light-curing methods, yet works as well with self-curing sealants and light-bodied pastes.

AOA’s experienced technicians use precision bracket placement equipment to accurately reference and place the brackets to standard and/or specific guidelines. For optimal results, we encourage doctors to review the patient’s Panorex and scribe on the work model in pencil the long axis and slot line for each tooth to be bracketed as an added reference. This step takes a couple of minutes but is particularly beneficial when addressing finishing considerations.

Accurate results start with accurate work models, so pour the models in stone immediately after taking the impression, or if you use PVS impression material, you can send the impression “unpoured” to the lab for processing.

Regardless of your experience with indirect bonding, its successful implementation of the technique requires a close relationship between your practice and AOA’s indirect bonding team. Consider them as an extension of your office – they’re always available to answer your questions. Remember, we can place all manufacturers’ brackets. AOA does not provide brackets; they need to be forwarded with the case.

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Now featuring the STb mini bracket and Social 6 application. AOA's lingual indirect department offers several methods and techniques for bonding lingual brackets. The approaches can be tailored to your specific patient as well as office experience level. Unlike labial, AOA can provide or, we will place other manufacturers’ brackets provided by the doctor.

You may request your cases include a single patient kit of clinical bonding resin, light activated Enlight LV with OrthoSolo sealant. Because the custom composite pads are compatible with most clinical bonding mediums, you may elect to use your own bonding material.

All of AOA’s techniques allow for requested over corrections of rotations as well as torque and angulation. This is especially critical in extraction cases or patients presenting with missing teeth. The CLASS method adds the element of precise slot height and “in and Out” thickness consistency. The process is designed to approach bracket placement as total arch coordination. The set-up may also be used for positioner fabrication. CLASS may be selected for single or dual arch treatment.

A further evolution of the CLASS method is the Straight Wire option. This approach drastically reduces the cuspid to bicuspid arch wire offset bend. The entire wire sequence, from Copper NiTi to the finishing wire, is comprised of straight curved wires carefully selected for each patient’s unique arch shape. AOA can compliment your Indirect Bonding case with your patient’s specific arch wire needs.

Our standard TARG (Torque Angulation Reference Guide) technique utilizes detailed bracket placement based on individual tooth positioning as related to the guides and templates of the TARG instrument. The method offers great economy and high accuracy, especially when treating a single arch with lingual brackets.

With their reduced size and rounded contours, STb brackets provide maximum patient comfort. Light-force mechanics of the light lingual system decrease stress of dental movement, making treatment far more gentle to the tissues.

STb have minimal impact on tongue position and speech. Clinical studies demonstrated negligible speech difficulty just after bonding, which disappeared completely within a matter of days. You and your patients will also appreciate the improved access proved for better oral hygiene.

**Archwire Sequence/Ligation:** Requires a low-force NiTi® or Copper NiTi® archwire. Place a .013 wire during initial leveling and alignment phase, and a .016 wire for additional alignment if necessary. A steel ligature .008 or .009 is recommended, but you may use .110 or .120 elastic ligature - no over tie is required. Check the archwire for distortion during control visits and replace as needed. Working time for both wires is approximately four months.

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Archwire Extender

The archwire extender is an accessory inserted into the molar tube to extend the function of the molar tube. This extender allows the practitioner to place a single rectangular archwire through the tube and not have it become dislodged during corrections. The majority of cases use the extender in the maxillary arch first, then in the mandibular arch as needed. By using the extender, the operator is still utilizing the light force, low friction concept to the maximum, and early treatment is now achievable in cases which traditionally would have required extractions.

The archwire extender is an economical accessory to treatment where a single rectangular archwire is used rather than multiple wires. Easy to insert, comfortable for the patient, and economical for the practitioner, the AOA extender is a valuable adjunct to all early Damon treatment!

The archwire extender is available with a tube size of .022” x .028”. Each extender is universal for maxillary and mandibular applications, left or right.

Available in Packages of 10
Order Part Number: 1604-3322

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Hawley Retainers

Although AOA fabricates Hawley retainers in many ways, our most popular method is to use a plaster model that impressions were taken before debonding the brackets. This method allows AOA ample time for fabrication, while allowing the patient to receive their retainers on the day of debonding. Many doctors have found this method an efficient way to transition from brackets into retention. Fabrication requires you to take the impressions right over the brackets and pour the models in either plaster or stone.

AOA’s retainer department can process virtually any clasp design: finger springs, and acrylic modifications such as bite planes and occlusal coverage. A wide variety of expansion and single tooth movement screws are available.

Anterior and posterior pontics may be requested in most of our designs, or in your custom design. Just indicate shade preference and we can match the shade with precision. Tissue compatible opaque acrylic may be requested to enhance the fit and blending of the pontic against the patient’s contour. AOA provides a shade chart for a small fee.
Spring Retainers

AOA’s most popular designs are ideal for correcting minor incisor irregularities such as rotations and tipping. The Spring Retainer can also be utilized for passive post orthodontic retention where severe rotations have been corrected. AOA will reposition the incisors ideally or as ideal as the malalignment will allow. If requested, AOA will reduce (strip) the contacts of each or selected incisors to create sufficient space when constructing the set-up. The appliance is self-activating due to the changes “programmed” into the construction model by the set-up. The appliance stretches around the irregular incisors and coaxes them into position. Over-corrections can be introduced into the set-up for additional force. TMA may be substituted for AOA’s special spring wire to accommodate unusual degrees of correction.

A valuable attribute of our designs is that if on occasion the patient discontinues wearing the appliance for a period of time the appliance will normally “flex” sufficiently to seat despite some incisor movement and re-engage the teeth for correction.

Red, White & Blue

The Red, White and Blue aligner system offers a solution to those adult dentition patients who are just outside the normal range of other removable tooth aligning appliances, such as Hawley or spring type retainers. RWB is ideal for patients who want the simplest aesthetic system possible to correct minor to intermediate incisal tooth malalignments. In addition to being aesthetically pleasing, RWB will not affect the patient’s speech and is very cost effective.

AOA will reposition the incisors ideally or as ideal as the malalignment will allow.

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Positioners

The positioner has been considered by many clinicians to be the most complete means of finishing orthodontic treatment. Combining modern materials and fabrication techniques with the experience of AOA’s technical staff has advanced the positioner to a multipurpose appliance. Its reduced wearing time and light weight mean improved patient cooperation and a refined finish. Even if the patient doesn’t wear the positioner as prescribed, the super elastic material will engage and correct alignment.

Our set-up technicians can process your gnathological cases on virtually any articulator system, including the High Post Panadent and the Sam III instruments.

Our positioner department has the skill to fabricate accurate and cost efficient "bench" set-ups and positioners. We also specialize in partial and diagnostic set-ups.

The majority of the positioner cases forwarded to AOA have the brackets reflected on the models. We remove the brackets and fabricate the set-up and positioner. This method allows the "immediate" placement of the positioner upon clinical bracket removal when teeth are most susceptible to guidance.

All of our positioners and mouthguards are custom trimmed to your exact specifications. Their thickness and height can be tailored to produce the perfect blend of patient comfort and appliance efficacy. Custom mouthguard information is obtainable by calling our Centralized Communication Center.

800.262.5221

Splints

AOA can process splints in many designs. Images of the most popular ones are listed here. Specific designs and preferences can be incorporated into your technical standing instruction file (TSI).

Most splint designs can be processed in several choices of materials or combinations of materials: splint acrylic, thermoplastic acrylic (which softens slightly when worn) and a soft or hard pressure formed clear plastic. Variflex heat softening acrylic provides a great option for an entire semi flexible splint or in combination with hard acrylic when the occlusal scheme and disocclusion is indicated. Options such as clasping or reverse pull facemask hooks should be requested on the Rx form.

The critical factor in any splint fabrication is the construction bite provided with the models. The bite should reflect both the desired inter-occlusal thickness and the horizontal relationship of the upper and lower jaws. Models mounted in an adjustable articulator may offer the best combination of arch positioning and working and balancing movements. AOA is equipped with Panadent, SAM and Denar systems as well as our exclusive hinge axis system.

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Pendulums provide consistent and dependable upper molar distalization without patient cooperation concerns.

Since its introduction, the pendulum has undergone numerous changes that have greatly improved patient comfort, eased appliance placement and activation, simplified design, enhanced stability and improved overall response. Several variations are being used successfully. (T-Rex, Pendex, Penguin, PHD, MDA, etc.) Overall, the primary force is still generated by bilateral TMA .032 pendulum springs. The springs, when activated 60-90 degrees, generate approximately 200 grams of force. The distal end of the springs slide into lingual sheaths welded to the molar bands. (Anterior anchorage of the Nance button should be in four locations - however this may vary by patient.) Some pendulums do not require acrylic such as the MDA or PHD.

Typodont Consultation Models

Urethane models in nearly 50 different occlusions are available for demonstration purposes. These models are suitable for either removable appliance or fixed bracket displays. You can choose a variety of typodonts and combine them into a customized presentation binder, e.g., Class I, Class II, Class III, crossbite, openbite, mixed dentitions, and many more possibilities. Your practice can benefit by illustrating treatment models to patients and parents as well as providing an excellent teaching aid for new staff members and referring offices. Consider purchasing binders for your most productive referring offices as a gift.

In addition to patient consultation, many doctors find that these models, with removable, or fixed appliances, are helpful in study club and group presentations for referring dentists. The urethane models are much more durable than acrylic and can be easily duplicated with alginate and plaster to produce “working” models for a variety of training functions.

Call for a complete listing of models, prices and articulator choices. If requested your office logo can be embedded in clear urethane on the top of the model.
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