

Custom Appliances & Services

The GAC OrthoLab provides custom laboratory services of outstanding quality. It was established to serve GAC customers with personalized service, consistency and exceptional attention to detail without any compromise to quality. GAC OrthoLab produces a full spectrum of custom lab appliances including: Retainers, RPE's, Positioners, Herbst, Functional, Splints and a variety of other appliances. We are also the exclusive provider of Accubond indirect bonding trays.

Our lab staff is committed to bringing our partners the appliances, products and custom work you need to best serve you and your patients. With over 500 years of cumulative experience, GAC's lab division ensures that GAC customers experience only the highest level of quality, rapid turnaround time and premier customer service. It is our goal to service the Orthodontic provider by fabricating custom appliances to your exact specifications with the highest level of quality and integrity.

For better dentistry

DENTSPLY
GAC

800.645.5530 | www.gacintl.com

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Removable Appliances

Hawley Retainers

Standard Hawley

Constructed with a .030 wire and acrylic, the standard design is comprised of a labial bow, "C" clasps and acrylic. Variations in design, acrylic color and extras are also available. Specify any special instructions on the prescription sheet. Please provide an opposing model so that the lab can check for interferences.



Wraparound Hawley

This design is indicated for use when elimination of occlusal interference is an objective. The Wraparound Hawley is constructed with acrylic, .030 labial archwire extending from most distal molar to most distal molar and adjustment loops in the cuspid area. Please provide an opposing model so that the lab can check for interferences.



Wraparound Hawley with Support Wires

This appliance incorporates the standard Wraparound Hawley design with the addition of .018 soldered support wires crossing the occlusion distal to the cuspids. This addition supports the labial bow in proper vertical position and prevents gingival impingement.



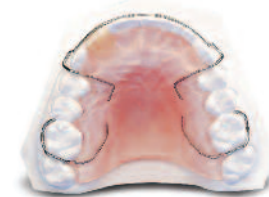
Hawley with Habit Crib

Designed for the correction of thumb/tongue habit, this appliance incorporates the Standard Hawley design with the addition of a looped .030 vertical crib. Other crib designs are an option and should be specified on the prescription sheet.



Standard Hawley with Pontic

Utilized for aesthetics or temporary space maintenance, this appliance incorporates any Hawley design, choice of clasping and plastic anterior/posterior pontics to replace missing teeth. Pontics are available in both adult and deciduous dentition. Shade 62 is the standard tooth shade used. Indicate alternate tooth shade preference on the case prescription sheet. To construct the appliance in occlusion, both upper and lower models must be submitted.



Removable Appliances

Spring Retainers

3-3 Spring Retainer

This appliance is principally designed to correct the common problem of irregular or relapsed upper or lower incisors. We can reset any or all of the four incisors to a more ideal relationship. The appliance is fabricated using a resilient .026 wire and acrylic. It maintains or improves arch shape and forces are directed from the labial or lingual. There is very little mesial or distal force, consequently, this appliance should not be used to close space. Please provide an opposing model so that the lab can check for interferences.

Spring Retainer with Distal Extension

Identical to the Spring Retainer in indications for use, this design is an option if additional retention is an objective. It features the basic Spring Retainer design with the addition of .030 ball clasps contoured to the gingiva of the first and second bicuspids. Please provide an opposing model so that the lab can check for interferences.

Modified Hawley/Spring Retainer

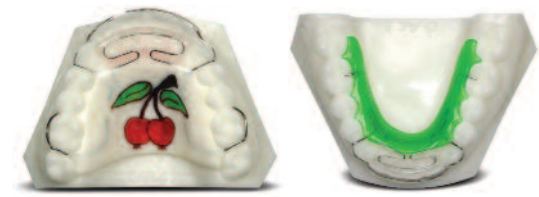
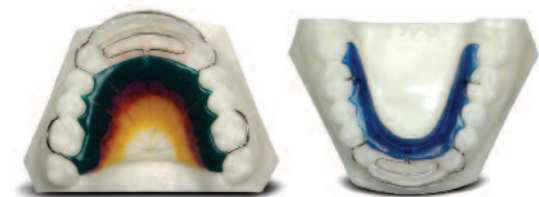
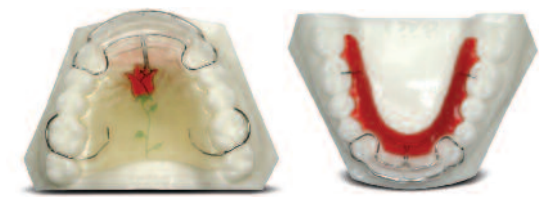
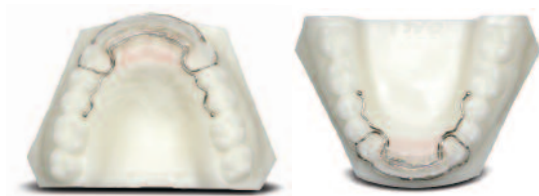
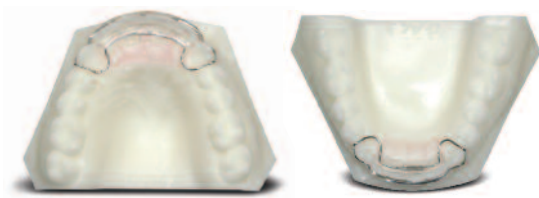
Although this appliance corrects the same problem as the Spring Retainer, this combination appliance is also useful when used at the time fixed appliances are removed. This is greater flexibility of design which insures against potential crowding or relapse, as well as offering additional retention features. Final detailed movements of the incisors can be achieved with a set-up. Full palate design provides better retention, stability and the appliance is not as easily lost. Please provide an opposing model so that the lab can check for interferences.

Super Modified Hawley/Spring Retainer

This appliance is an improved design for use on cases where significant labial movement of centrals or laterals is required. This design provides more flexibility on the lingual than the Modified design to allow greater labial movement in the set-up, while allowing the patient to seat the appliance easily. Please provide an opposing model so that the lab can check for interferences.

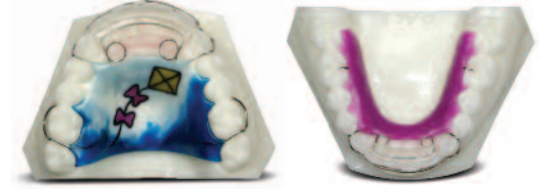
Mushroom Spring/Hawley Retainer

This appliance is similar in design to the other Spring/Hawley Retainers. The one main advantage for using this design is that the "S" shaped wires are exposed on the lingual of both the upper and lower appliances, allowing for greater access with the triple beak pliers for enhanced adjustability. Please provide an opposing model so that the lab can check for interferences.



Helix Coil Spring/Hawley

This appliance also corrects irregular or relapsed upper or lower incisors. We can reset any or all of the four incisors to a more ideal relationship. The lingual helical springs provide excellent flexibility while allowing for minor adjustments. Full palate design provides better retention and stability. Please provide an opposing model so that the lab can check for interferences.



Adapter Appliances

Adapter with Sentalloy Coil Springs

Constructed from transparent polycarbonate, this appliance is ideal for finishing, closing spaces, and limited rotation of incisors (set-up required). Superior aesthetics and absence of occlusal or palatal coverage enhance patient acceptance. The Sentalloy Adapter also features 200 grams Sentalloy Ni-Ti closed coil springs for consistent force activation without the need for replacement. Force delivery is constant when needed, and passive for maintenance. Please provide an opposing model so that the lab can check for interferences.



Splints

Used for treatment of TMJ, bruxism and for the athlete competing in non-contact sports, splints are available in many styles and variations. We can honor any design specification for splints. Please be specific when submitting the prescription. Splints are available for upper or lower arches, with or without opposing arch indentations, articulated or non-articulated, and in a variety of materials.

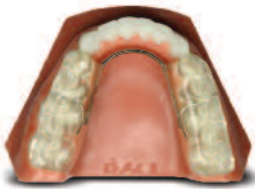
Accuracy of the models is of utmost importance to construct a precise splint. Please also forward a wax construction bite reflecting the desired A/P relationship and interocclusal thickness.



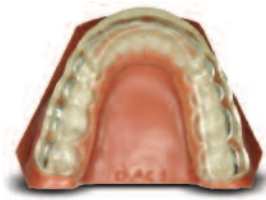
Roth



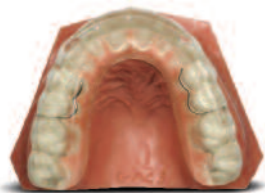
Flat Plane



MORA



Lower Tanner



Upper Superior
Repositioning



Splint with
Cuspid Rise

Positioners

Regardless of the method used, the set-up can be constructed to correct minor width discrepancies, close 3-5mm of even spacing around an arch, slightly flatten the occlusal plane or increase the Curve of Spee. Vertical overbite can be increased or decreased. We normally do not recommend changes of more than 2-3mm in overbite, or 8-10 degrees in anterior axial inclination. Unless extreme changes are required, we normally set the teeth with an ideal overjet. We recommend using our bracket carving service on any set-up. This enables placement of the positioner immediately following debanding of the case, enhancing patient cooperation. Variations in materials and colors are also available.



White Rubber



Silicone



Impak

Vinyl Positioners



Clear



Yellow



Blue



Red



Purple



Green

Custom Appliances & Services

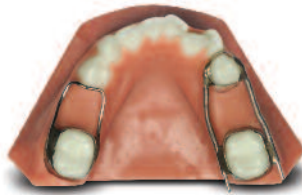
Fixed Appliances

Holding Appliances

Holding appliances are generally used for two purposes: a) After braces are removed a lingual arch may be placed from cuspid to cuspid (or 2-2 or 1-1) on either the upper or lower arch to ensure the teeth maintain their ideal arch form. b) During the mixed dentition phase, a Space Maintainer or 6-6 Lingual Arch may be placed to prevent unwanted movement when deciduous teeth exfoliate.



E-Z Bond
(Tray included)



Space Maintainer (L)
Space Regainer (R)



Nance Button



3-3 Lingual Arch



6-6 Lingual Arch
with Loop



Fixed TPA with Loop



3-3 MCLR

Habit Control Devices

Bluegrass Appliance

This appliance is used to break a thumb-sucking habit. A body wire is soldered to molar bands, providing support for an anterior orally placed "roller". The patient is encouraged to turn the roller with the tongue, instead of sucking the thumb.



Tongue Habit Appliance

This appliance is used to break a tongue-thrust habit. A body wire is soldered to molar bands, providing support for a vertical tongue crib, which then prevents the tongue from thrusting outward.



Thumb Habit Appliance

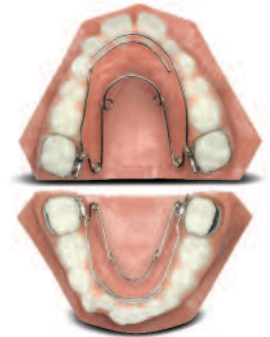
This appliance is used to break a thumb-sucking habit. A body wire is soldered to molar bands, providing support for a crib that is formed parallel to the palate so that the patient's thumb does not contact the upper palate thereby inhibiting suction.



Arch Expanders

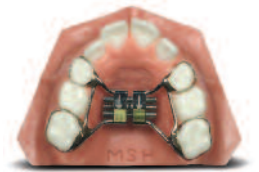
MIA (Mobile Intraoral Arch) Removable Quad Helix

The appliance is easily removed from the curved sheaths, eliminating the need for debanding and recementing to make any necessary adjustments. The curved insertion loop and sheath allow for clearance of the anterior teeth upon insertion. Constructed from .035in wire, the four helices provide excellent elasticity. Extra long arms provide forces for expansion, contraction, rotation, or torque, where needed.



Banded RPE

The Banded RPE is designed to correct crossbites, narrow arches and crowding with rapid palatal expansion. Bands are commonly placed on the 1st bicuspids and 1st molars. For mixed dentition cases, bands are usually placed only on the 1st molars. If required, reverse pull face mask hooks may be added, as well as vertical habit cribs or archwire tubes. Our standard screw allows for 11mm of expansion and features a double-guide pin. If a screw with less bulk is desired, a compact screw with a single guide pin can be used.



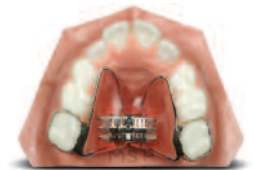
Acrylic Bonded RPE

The Acrylic Bonded RPE features a wire framework bent around the buccal and lingual of the posterior teeth with acrylic covering the occlusal. It is bonded to the arch and works well for patients with deciduous teeth or mixed dentition. Wire debonding loops or debonding screws may be incorporated into the appliance to facilitate its removal. The same accessories available on the Banded RPE are also available on this appliance.



Haas Expander

The Haas Expander may be used with bands on just the 1st molars or bands can also be included on the 1st bicuspids. Acrylic, which encompasses the expansion screw, is placed in the vault of the palate to aid in expansion. Support wires are bent to contact the lingual of the posterior teeth.

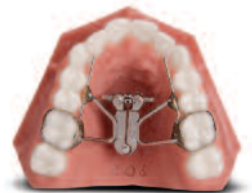


Fixed Appliances



Super Screw Expander

This innovative design delivers a full 18mm of expansion. The small profile and round, smooth shape, provides greater patient comfort and excellent hygiene. A hex wrench is supplied with each appliance for exceptional ease of activation. The Super Screw is available in the bonded or banded style.



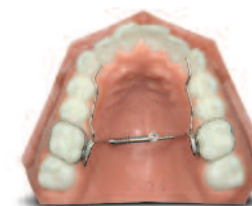
Exspider Expander

The Exspider Expander may be fabricated with either bands on the 1st molars or as an acrylic bonded expander. The screw is unique in that it allows for only anterior expansion without any posterior widening. It is commonly used on cleft palate cases.



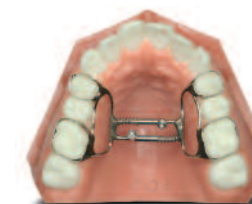
Fixed Quad Helix

The Fixed Quad Helix is used for expansion of the maxillary arch and is made from a resilient .038 blue elgiloy wire. It features horizontal loops with lingual arms extending to the deciduous cuspids and is soldered to the 1st molar bands. Tongue/thumb habit loops can be soldered to the appliance upon request.



Spring Jet I

The Spring Jet I requires bands on the 1st molars and utilizes one 400g nickel titanium coil spring that delivers slow, controlled arch expansion for patients with collapsed arches or crossbites. Activation is achieved by pushing the lock mechanism to compress the coil spring and using an allen wrench to tighten the screw in the lock mechanism to hold the compression.



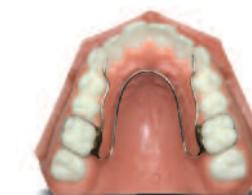
Spring Jet II

The Spring Jet II requires bands on the 1st bicuspid and 1st molars and utilizes two 400g nickel titanium coil springs to achieve more rapid palatal expansion with reliable results, minimal tipping and no patient compliance. Use the same activation technique as described for the Spring Jet I.



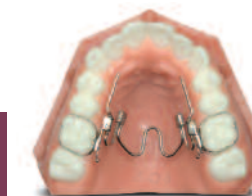
Lower Bi-Helix

The lower Bi-Helix is used for expansion of the mandibular arch and is made from a resilient .038 blue elgiloy wire. It features a loop near each 1st molar with lingual arms extending to the deciduous cuspids and is soldered to the 1st molar bands.



"W" Arch

The "W" Arch is another fixed appliance that is soldered to the bands on the 1st molars. It features a .040 body wire that is contoured to the palate with lingual arms that extend up to the deciduous cuspids.

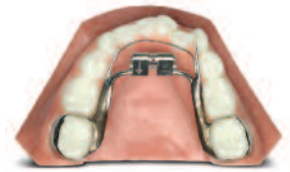


Nitanium Expander

The Nitanium Palatal Expander utilizes bands on the 1st molars. The unique characteristic of this appliance is that it is made from a heat activated wire that begins expanding after it is placed in the mouth and reaches body temperature. It is inserted into lingual sheaths that are laser welded to the molar bands.

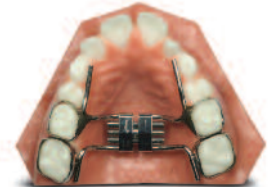
Williams Expander

The Williams Expander is designed for transverse expansion of the lower arch. It typically features bands on the 1st molars and a single guide pin expansion screw to reduce bulk.



Roncone RPE for Expansion & Distalization

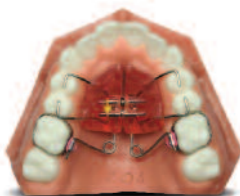
This appliance features our standard 11mm double guide pin expansion screw. The anterior arms of the screw are soldered to bands on the deciduous 2nd molars and the distal arms of the screw are bent to contact the lingual of the 1st molars, but are not soldered to the 1st molar bands. This design allows for both rapid palatal expansion as well as molar distalization by adding a coil spring on the archwire between the 2nd deciduous molar and the 1st molar.



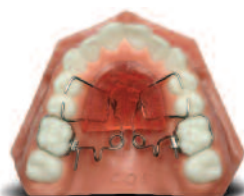
Molar Distalizing Appliances

Pend-X, Pendulum, and T-Rex

Designed for distalization and rotation of maxillary 1st molars, these appliances also offer arch expansion. The .032 Beta Titanium springs slide into .036 lingual sheaths delivering light continuous force. Anterior anchorage is provided through the use of occlusally bonded rests on the deciduous molars or 1st and 2nd bicuspid. Bands can be substituted on 1st deciduous molars or bicuspid for increased retention.



Pend-X



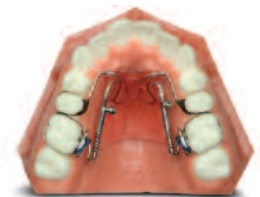
Pendulum



T-Rex

Bilateral Distal Jet®

The Distal Jet is a fixed lingual appliance designed to produce either unilateral or bilateral molar distalization without patient compliance. Bands are placed on the 1st molars and either the 1st or 2nd bicuspid, depending on clinician preference. 240g nickel titanium coil springs are utilized to deliver the force for molar distalization. After the desired amount of distalization is achieved, the Distal Jet is converted to a Nance Holding appliance. An expansion screw may be added for transverse expansion.



Greenfield Molar Distalizer

The Greenfield Molar Distalizer, is a fixed appliance with buccal and lingual pistons. Placing the pistons at the gingival level reduces the distance of the applied force from the center of resistance of the molar. This minimizes the crown-tipping movements observed with other distalizers. Thus, the GMD produces bodily molar movement with almost no tipping. Available with or without RPE.



Functional Appliances



Open

Close



Open

Close



Bionators

Bionator to Open

Used to achieve correction of A/P discrepancies, arch expansion, and improved vertical relations of posterior teeth. A lateral expansion screw is placed lingual to the lower incisors. An acrylic cap prevents further eruption of anterior teeth. No acrylic coverage of posteriors allows for eruption and ultimately produces bite opening.

Bionator to Close

Acrylic coverage of posterior teeth prevents eruption. No coverage of anteriors promotes bite closure.

Orthopedic Corrector to Open or Close

Designed identical to bionators to open or close with the addition of two sagittal screws used for mandibular advancement.

Frankel Appliances

The Frankel appliance is designed to establish harmonious functional patterns for the simultaneous development of bone, muscle, and dentition, with total facial balance as the main objective. All of our Frankels are constructed with exceptionally durable wire that virtually eliminates wire breakage.

Evans Class III Sagittal

Utilized for expansion of the premaxilla area. Standard design features two sets of clasps, occlusal coverage of the posterior teeth, two anterior push expansion screws, and lip pads.

Nord

Utilized to correct unilateral crossbites. The side opposite the crossbite serves as a stabilizer. Upper and lower posterior teeth are indexed in acrylic and an acrylic flange extends down to the lingual of the posterior teeth. An expansion screw moves the teeth in crossbite to the buccal.

Jackson

Utilized for transverse expansion of the mandible. Activation occurs by laterally expanding the heavy body wire. Whip springs may be used to flare anterior teeth.



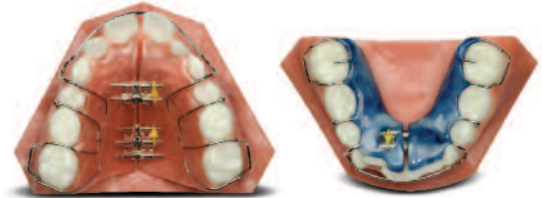
Sagittal (upper & lower)

Utilized to achieve correction of crowded arches. In many cases, to create space for blocked out cuspids. Standard design features two sagittal screws, two sets of clasps, and cuspid hooks. Upper Sagittal has occlusal coverage of posterior teeth while Lower Sagittal does not.



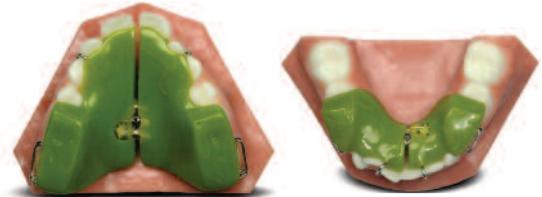
Schwarz (upper & lower)

Designed for transverse expansion, our standard Upper Schwarz design features two midline expansion screws, two sets of clasps, a labial bow, and occlusal coverage of the posterior teeth. Our standard Lower Schwarz design features a midline screw, two sets of clasps, a labial bow, and no occlusal coverage. Additional attachments can be added to the appliance upon request.



Twin Block Appliance

This versatile series of appliances reposition the mandible by using inclined planes on the upper and lower occlusal. This unobtrusive technique allows the optional incorporation of other simple functional devices to achieve arch lengthening, arch expansion, or vertical change. These appliances are also designed to be worn full-time because they cause little interference with eating, sleeping, or speech.



Functional Appliances



Herbst®

Herbst

This appliance is used for the treatment of Class II malocclusions that are mandibular retrusive. It consists of tubes and plungers that connect to, and pivot on, the axles. The axles are soldered to either a wire framework, bands, or stainless steel crowns, depending on the type requested. The tube and plunger assembly supports the mandible in the advanced position. As treatment progresses, additional forward posturing of the mandible can be accomplished by placing “spacers”, which are small sections of tube, onto the plunger and crimping them at the area of the axle.



Herbst
Cantilever with
Reinforced Bands



Herbst
Mayes Design



Herbst
Larry White Design



Herbst
Dischinger Design
Mixed Dentition



Herbst
Smith Type II



Herbst
Mini Scope



Herbst
Hank Telescoping

Herbst is a registered trademark of Dentaureum.

Consultation & Educational Models

GAC OrthoLab will fabricate any custom appliance to your prescription on an appropriate two-tone model for patient consultations. Models are provided at a 50% discount when ordered with an appliance. We also offer a wide array of consultation models:

Unhinged Models



Ideal Occlusion
44-502-02



Class I Anterior Open Bite
Narrow Arches
44-502-21



Class II Division I
Overbite Overjet Midline
44-502-23



Class II Division II
Permanent Dentition
44-502-26



Class I Executive
Overbite Overjet
44-502-22



Class II Open Bite
Narrow Arches
44-502-24



Class II Division II
Mixed Dentition
44-502-25



Class III Mixed Dentition
44-502-27



Cross Bite
Mixed Dentition
44-502-28

Hinged Models

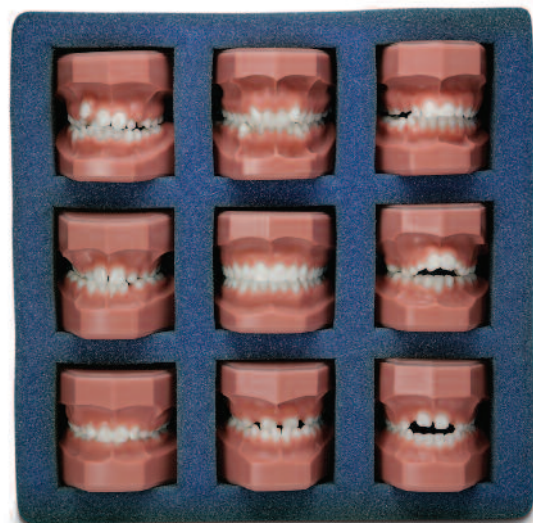


Ideal Occlusion
44-502-03



Master Series

A complete set of standard models are available in a Master Series set for ordering - 44-502-35



Accubond® Indirect Bonding

The Accubond System from GAC realizes the full potential of indirect bonding with highly accurate bracket placement and strong, reliable bonds. With Accubond, you can bond an entire arch in about 20 minutes, and have confidence that each bracket will be in its ideal position. Bonding will be faster and gentler for the patient - very attractive to new patients - and the need to reposition brackets will be dramatically reduced.

