**Fixed lateral expanders** are great arch-widening appliances for non-compliant patients with narrow arches, posterior crossbites.

**WIRE FRAME HYRAX**

The bonded and bonded Hyrax were both originally designed for rapid palatal expansion. The traditional hyrax screw (shown above) expands up to 10 millimeters and is still widely used today. The “Super Screw” (shown below) can be used for additional distances of up to 18 millimeters.

**BONDED HAAS**

One advantage the bonded version offers over the banded is it prevents tipping of the teeth. The Haas appliance also provides additional palatal anchorage during expansion. The appliance above is Dr. Steve Galella’s version. Clear acrylic is used so doctors can check for leakage.

**BONDED RPE WITH SUPER SCREW**

The bonded Hyrax provides better torque control and is a good solution for high angle cases. Thick pads help intrude the posterior teeth by interfering in the freeway space.

**GORDON EXPANDER**

The benefits of the Gordon anterior expander is once this step is completed, the doctor can insert a Controlled Arch without removing the bands.

**fixed lateral expanders** are used to drive molars distally on upper or lower arches, without elastics. You can achieve up to one millimeter of distalization per month.

**Wilson Anterior Bite Plane** will help you maintain Class II correction and disclude posterior teeth with the option to change appliances using the Wilson tubes. (The photo above is a Rick-A-Nator with Wilson tubes.)

**BITE BLOCKS**

**NITANIUM PALATAL EXPANDER (NPE)**

The NPE is a thermally-activated appliance used for slow expansion. Many doctors like to use the NPE because there are virtually no adjustments needed. The appliance is chilled prior to seating in order to gain flexibility. Once the metal is warmed in the patient’s mouth, it regains its tension. Some doctors leave this in during the bracketing phase for cross-palatal support.

**AP EXANDERS**

An A-P Expander is nothing more than an arch-lengthening appliance. It can be a major tool in your treatment plan by enabling you to relieve crowded arches.

**POSTERIOR DRIVE**

This distal-driving fixed appliance is used to drive molars distally on upper or lower arches, without elastics. You can achieve up to one millimeter of distalization per month.

Dr. Bob Gerety’s version, shown above, places a heavy wire between the 6’s and 7’s. Wilson lingual tubes are also used on this version.

**CD DISTALIZER**

Shown above is our standard CD Distalizer, which has an option for arch width development.

This commonly prescribed appliance is used to develop the pre-maxilla. The doctor controls the spring activation, which in turn gives them predictable results. The “Nance button” allows remodeling of the anterior pre-maxilla. OPTIONS: Galetta tongue loop, RPE screws or cross-palatal arch wire.

**CD ANTERIOR REMODELER**

This distal-driving fixed appliance is used to develop the pre-maxilla. The doctor controls the spring activation, which in turn gives them predictable results. The “Nance button” allows remodeling of the anterior pre-maxilla. OPTIONS: Galetta tongue loop, RPE screws or cross-palatal arch wire.

**CD DISTALIZER**

Shown above is our standard CD Distalizer, which has an option for arch width development.
**Clips II**

**Retention**

- **E-Z Bond**
  - The E-Z bond has gained in popularity because it offers less chair time for the doctor. Composite pads on each individual tooth also help prevent a recurrence of crowding.

- **Banded Retainer**
  - The lingual wire retainer is normally used at the end of orthodontic treatment to maintain incisor position. Both upper and lower arches are available from Johns Dental. Multiple mesh pads can also be requested for each tooth.

- **Controlled Arch**
  - This molar-stabilizing appliance creates proper tip, torque and rotation of molars prior to the next level of treatment. It is important to complete this step first to prevent arch wire deflection and unwanted tooth movement. This version of the controlled arch, shown above with Delta-Force brackets.

- **Lingual Arch**
  - This lingual arch is our standard soldered version and is used as a holding appliance. Some doctors prefer the Wilson versions, which allow the use of interchangeable modules for future treatment.

- **Bond-A-Splint**
  - The Bond-a-splint is a pre-fabricated cast metal, low profile lingual retainer that is bonded to all anterior teeth. The low profile nature provides patients with superior comfort while maintaining the alignment of the anterior teeth.

- **Transpalatal Bar**
  - This form of a holding arch is one of the most commonly used appliances for holding the molars in a posterior, de-rotated position.

- **Fixed Twin Block**
  - (Dr. Jay Gerber’s version)
  - This mandible-advancing appliance offers similar benefits to other removable Twin Blocks, but eliminates patient compliance concerns with his “Banded Block” version. In addition, many of the sharp edges have been rounded to improve patient comfort.

- **MARA**
  - (Mandibular Advancing Repositioning Appliance)
  - The MARA is used to advance the mandible. It started to gain popularity in 2003 with lecturers like Dr. Derek Mahony speaking of its successes.
  - The standard MARA does not have expansion screws or arch wires, but those features can be add-on options. Metal spacers are used to activate the appliance.

- **Fixed Ortho®**
  - The Herbst® appliance can be a good treatment alternative for patients who will not wear removable appliances with regularity. There are two main appliance designs available from Johns Dental: the banded and the bonded Herbst. The appliance advances the mandible allowing skeletal and dental changes to occur. The patient has a range of vertical and lateral movement making it reasonably comfortable after a brief adjustment period.

- **Anterior Remodeler**
  - The Twin Force Bite Corrector

- **Fixed Appliances from Johns Dental eliminates patient compliance concerns.**