For Minimal/Intermediate Anterior Tooth Alignment

“Hi doc. My son Jimmy’s teeth are looking great! Do you think you could do something with my anterior teeth?”

Dr. DeLuke completed his dental training and orthodontic residency at the University of North Carolina at Chapel Hill. He has been published and produced educational videotapes. Dr. DeLuke holds a US patent on a “magnification” measurement technique that detects facial growth anomalies and a number of patients pending, including the DeLuke Contoured Expander. He has maintained his private orthodontic practice in Niagara Falls, New York, for 21 years. He office was featured in The Journal of Orthodontic Practice. He also founded DeLuke Dental Solutions, an education and appliance design company specializing in consulting, chair-side tutorial and auxiliary services.

AOA/PRO Offers Solutions in Philadelphia at Booth 1837

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Dr. Anthony DeLuke from Chicago, Illinois, and Bath Memorial Hospital shares his design for a Rapid External Distraction Splint used in conjunction with a Halo System. The results have been truly remarkable.

We are also featuring our featured update on Intra-oral scans that AOA/PRO will be utilizing. In particular, please take time to review the changes to the Hilgen/DeLuke Expander and Molar Distalizing Appliance.

We hope you’ll find this issue interesting. If you have any questions or comments, call me at our technical line at (800) 262-5221. We look forward to seeing you at the upcoming meetings.

AOA/PRO customer service line (800) 262-5221

AOA/PRO is a subsidiary of the Ormco Corporation

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Appointment #2 (20 minutes) – (12 weeks after Appointment #1)

Appliance Removal – Have the patient brush with only water to remove any food or plaque. No other preparation or bleaching of teeth is required. With a scaler brush, brush the entire crown of each metal-inlaid cap into the mucosal portion of the cap to remove any excess cement. Place the expander on the anterior teeth and hold for three minutes until the cement is set. The cap will completely cover the palatal floor, providing occlusal guidance. This method of appliance delivery is very comfortable for the patient and a major timesaver.

Patient/Patient Instruction – One complete verbal and written instruction to the patient/parent, advising them to turn the expansion screw the total number of turns plus full turns per day. We have the patient check the appliance on the DeLuke Contoured Expander, call AOA/Pro at (800) 262-5221. Call DeLuke Dental Solutions at (800) DELUKE1. For more information request in writing.

Figure 3. Applying glass ionomer to the maxilla through the dentition with an intraoral splint. Applied to the maxilla through the dentition with an intraoral splint.

The DCE and simplified palatal expansion appliances are tolerable for patients of any age. However, younger patients particularly appreciate the simplicity of insertion and removal.

We have used the Contoured Expander exclusively for over a year. This simple, predictable expansion appliance eliminates separators, band fitting and extra appointments. Patients, parents and staff enjoy its simplicity of insertion and removal.

Rigid External Distraction Intraoral Splint

Before: Patient showing deficient transverse maxillary width.

After: After the DCE has completed expansion and soft-tissue expansion.

CASE –

CAUTION: Ensure that the TMA Springs are activated and tied to the RPE screw legs.

Figure 1a. Side view of the Rigid External Distraction (RED II) System (Figures 1a & 1b), we have seen much success in treatment of patients with not only transverse maxillary hypoplasia associated with cleft palates but also complex craniofacial anomalies. Today orthodontists and maxillofacial oral surgeons are teaming up to effectively treat patients with maxillary and midface skeletal hypoplasia using the principles of distraction osteogenesis.

With the Rigid External Distraction System, the necessary traction is applied to the maxilla through the dentition with an intraoral splint. Traction is exerted on the maxilla using buccal attachments and 0.032 stainless steel orthodontic wire. The MDA Expander is a small, clean expansion appliance that has the power to deliver a maxillary motion similar to that provided by the revolutionary Compact RPE. The 0.024 TMA MDA Expander delivers enormous force over a short period of time for dependable palatal expansion, and the Compact RPE can expand up to 11 mm. The original expander design, the solution to the lip drape and the distance needed for adjustment to accommodate the patient’s recovery process immediately after surgery.

If you or the maxillofacial oral surgeons on your interdisciplinary team have questions or would like to discuss this service in detail, call Dennis Post or John Fuller at the AOA/Pro laboratory in St. Louis, Missouri (1-800-362-5221).


WHAT TO SEND TO AOA/PRO

An order form for mental expansion appliances. Bands sent on both the first bicuspids (or first deciduous molars) and first molars.

WHAT YOU WILL RECEIVE

The Mini-Distalizing Appliance MDA Update Spring 2002 Since its introduction over a year ago by Dr. John Poley and Steve Tracey, The Expanders have become a major impact in the field of maxillofacial orthopedics.

The MDA Expander is a small, clean expansion appliance that has the power to deliver a maxillary motion similar to that provided by the revolutionary Compact RPE. The 0.024 TMA MDA Expander delivers enormous force over a short period of time for dependable palatal expansion, and the Compact RPE can expand up to 11 mm. In the original expander design, the solution to the lip drape and the distance needed for adjustment to accommodate the patient’s recovery process immediately after surgery.

If you or the maxillofacial oral surgeons on your interdisciplinary team have questions or would like to discuss this service in detail, call Dennis Post or John Fuller at the AOA/Pro laboratory in St. Louis, Missouri (1-800-362-5221).
Rigid external distraction introral splint

Figure 1. Before and after of the splint.

**CASE**

**Before:** A 56-year-old woman presented with transverse arch crowding.

**After:** The splint was removed after 5 weeks of active use. The patient noted a minor degree of discomfort with the splint, and the patient was given a Phase I retainer for their home care.

**Conclusion:** The splint is a simple, effective appliance for orthodontic distalization.

**MATERIALS AND METHODS**

The splint is made of acrylic and is attached to the maxillary teeth using orthodontic bands. The splint is adjustable to accommodate any changes in the patient's arch.

**DISCUSSION**

The splint is a useful appliance for orthodontic treatment. It provides a simple, effective method of achieving orthodontic distalization.

**REFERENCES**


2. Patient pending. For more information on the swallow-training appliance, call the DeLuke Contoured Expander, call AOA/Pro at (800) 262-5221.

3. The MDA Expander is a small, clean expansion appliance that has the power to distalize molars and can be used with or without advantages of the revolutionary Compact RPE. The 21M Pendulum MDA Expander delivers constant force over a more uniform force distribution than the MDA Expanders.

4.patient receiving extractions for maxillary molars.

**WHAT TO SEND TO AOA/PRO**

- An orthopedic splint or other appliance
- Bands or bands alone
- What you will receive
- A pair of upper and lower incisors

**WHAT YOU WILL RECEIVE**

- A pair of upper and lower incisors
- Bands or bands alone

**DISCLOSURE**

The DeLuke Contoured Expander is a registered trademark of the DeLuke Contoured Expander, call AOA/Pro at (800) 262-5221.

**ACKNOWLEDGEMENTS**

Codevelopers John W. Poley, M.D. and Alvaro A. Figueroa, D.D.S., M.S., and manufacturer KLS-Martin L.P.

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Dr. Deluca completed his dental training and orthodontic residency at New York University in Brooklyn. He has been published and presented educational videotapes. Dr. Deluca holds a US patent on a ‘minimally invasive’ measurement technique that detects facial growth. He has a number of patents pending, including the Deluca Contoured Expander. He has maintained his private orthodontic practice in Niagara Falls, New York, for 21 years. His office was featured in the Los Angeles Times Orthodontic Practice. He also founded Deluca Dental Solutions, an education and appliance design company specializing in consulting, client-site tutorial and ancillary services.

Simplified Palatal Expansion

Anthony G. DeLuke, DDS
Niagara Falls, New York

Palatal expansion is the first treatment objective in an increasing number of orthodontic treatment plans. The need for expansion is obvious in patients with posterior crossbite. Patients being treated for mandibular advancement and patients with equal maxillary and mandibular transverse deficiency are candidates for expansion.

Simplified palatal expansion dramatically reduces time, requiring only three to four appointments using a patent pending two-appliance design called the Deluca Contoured Expander (DCE). In design feature and simple technique allow assistance to complete clinical procedures with minimal supervision. With this new design, hard insertions can be substantially simplified or eliminated.

The DCE is appropriate for patients in mixed or permanent dentition and can be fabricated with any type of expansion screws and springs. Phase I: We found reliable expansion progress using the Forestadent® screw. The DCE incorporates a special thermoplastic to create that contain cartilage that can be easily reformed to completely cover the lingual, occlusal and facial surfaces of the anchor tooth. The shift characteristic of the cartilage facilitates comfort and reliability.

Clinical Procedures

Appointment 1: (20 minutes)

Upper Arch Impression – Take an upper arch alginate impression in a clear condensation tray and send it to the lab for fabrication of the DCE.
AOA PRO OFFERS SOLUTIONS IN PHILADELPHIA AT BOOTH 1837

The QCM Retainer is the Aesthetic Solution
Labiolar/Lingual Indirect Bonding

The AOA/Pro Offers solutions using lingual and maxillary labial appliances. AOAs and AAO/Pro have developed and refined direct bonding technology, to the extent that the major indications for such treatment are now in the door. AOAs and AAO/Pro have designed an indirect bonding solution, using the latest products and techniques to make direct bonding feasible. A superlative solution for today’s orthodontic practice. Labial/lingual indirect bondings are placed according to your prescriptions or other popular methods. They are available with certain bases or in a bonded version. All orthodontists have access to the information included in the Class III, TADS, and Bonded direct bonding.

The QCM retainer is the aesthetic solution. Labial/lingual indirect bonding provides the opportunity for a metal-free retainer. AOAs and AAO/Pro have designed an indirect bonding solution, using the latest products and techniques to make direct bonding feasible. A superlative solution for today’s orthodontic practice. Labial/lingual indirect bondings are placed according to your prescriptions or other popular methods. They are available with certain bases or in a bonded version. All orthodontists have access to the information included in the Class III, TADS, and Bonded direct bonding.

In this issue, Dr. Anthony Deluca from Niagara Falls, New York, presents his update on the Bonded RPE. This simple design with ease of insertion and removal should prove interesting to offices that are looking for an alternative to bonded expansion appliances.

Dr. Abhishek Pugaria from Chicago, Illinois, and Rush Memorial Hospital shares his design for a Rigid External Distraction Splint used in conjunction with a Halitox System. The results have been truly remarkable.

We are also featuring our usual update of timely articles that AAO/Pro will be attending. In particular, please take time to review the changes to the Halitox/Tricky Expander and Molar Distalizing Appliance.

We hope you’ll find this issue stimulating. If you have any questions or comments, call me or our technical team at (800) 262-5221. We look forward to seeing you at the upcoming meetings.

Dr. Deluca completed his dental training and orthodontic residency at the University of Maryland in Baltimore. He has been published and produced educational videotapes. Dr. Deluca holds a US patent on a “contouring” measurement technology that detects facial growth asymmetry and a number of patients seeking, including the Deluca Contoured Expander (DCE). He has maintained his private orthodontic practice in Niagara Falls, New York, for 21 years. His office was featured in the January Journal of Orthodontic Practice. He also founded Deluca Dental Solutions, an education and appliance design company specializing in consulting, client-site tutorial and ancillary services.

APO/PRO CUSTOMER SERVICE LINE (800) 262-5221

Dr. Anthony G. DeLuke, DDS
Niagara Falls, New York

Palatal nasal expansion is the first treatment objective in an increasing number of orthodontic treatment plans. The need for expansion is obvious in patients with posterior crossbite. Patients being prepared for mandibular advancement and patients with equal maxillary and mandibular transverse deficiencies are also candidates for expansion.

Simplified palatal expansion dramatically reduces time required, replacing only two 3-month appointments using a palatal expandable appliance designed called the Deluca Contoured Expander (DCE). In design features and simplicity allows patients to complete clinical procedures with minimal supervision. With this new design, hard inventories can be reduced dramatically or eliminated.

The DCE is approved for patients in minor to moderate expansion and can be fabricated with many types of expansion screws and springs (Figure 1). I have found reliable expansion progress using the DeLuke Device. In design features and simplicity allows patients to complete clinical procedures with minimal supervision. With this new design, hard inventories can be reduced dramatically or eliminated.

The DCE is a remarkable design that allows the technician to find new areas of expansion along the gingival framework, eliminating plaque buildup and gingivitis. The lab technician measures the outer surface of the appliance to provide the indications for the non-modified glidden concentric. Compensation of the DCE requires no relining or relining of the anchor tooth. The flex characteristic of the crown facilitates continuous control.
The patient to use Listerine daily to reduce bacteria.

active expansion followed by a six-week stabilization period. We advise

13 weeks after initial insertion. This schedule provides seven weeks of

size (42 turns for an 11 mm screw). The patient ceases activations after

Appointment #3 (20 minutes) –

Appointment #2 (20 minutes) –

thermoplastic swallow-training appliance.* With 15-minute swallow-

discomfort than traditional banded or bonded palatal expanders.

Appliance Removal – Using Hamilton pliers, gently lift the buccal

cement into the anatomical caps

Figure 3. Applying glass ionomer

Figure 4. Removal technique

Figure 1a. Side view of the Rigid External Distraction System (RDX 10 System). Figure 1b. Front view.

Before: Patient showing deficient transverse maxillary width.

After: The DCE has completed sequential parallel root expansion.

Figure 1. Rigid external distraction

bands on the teeth. (In cases where the patient lacks sufficient

nodular anchorage, bone plates can be added and shaped to the

distraction process with screws.) After taking the impression, trans-

fer the bands from the teeth to the impressions and cast correctly.

Press the impression with dental stone and send to the lab for fabrication.

On the working model, the lab will make the splint with 245 stainless

steel orthodontic wire. If the patient doesn’t have orthodontic brackets, the

lab will build the labial and palatal wires in close contact with most

of the maxillary teeth. If the patient has orthodontic brackets, the

lab will build the labial wire only and gingivally to clear the

appliance. For added rigidity, a temporary base and binding wires can be

incorporated into the design of the splint. In cases where

width is required, an expansion screw can be added. (When AAAPACO

laboratory fabricates the splint, all connections are routinely reinforced

with laser welding prior to firing.

The external hooks, which are designed with a heavy square wire, fit

into square tubes laser welded to the anterior arc of the labial wire.

A major advantage of the removable external hooks (Figure 3) is that

they can be inserted and adjusted after the patient is out of the

operating room and more alert, avoiding problems associated with

the recovery process immediately after surgery.

If you or the maxillofacial oral surgeons on your interdisciplinary

team have questions or would like to discuss this service in detail,

don Call Dennis or Jon Pfeiffer at the AAAPACO Laboratory in

St. Louis, MO, at (314) 262-5251.

Alvaro A. Figueroa, D.D.S., M.S.; and manufacturer KLS-Martin L.P.

CASE

CASE

WHAT TO SEND TO AOA/PRO

A copy of each letter or note to the patient and families. Bands should be noted on both the first bicuspids (or first deciduous molars) and first molars.

WHAT YOU WILL RECEIVE

A model for each letter or note to the patient and families. Bands should be noted on both the first bicuspids (or first deciduous molars) and first molars.

MDA Expander is a small, closed expansion appliance that has the power to disimpact molars and close good class II spaces, and can serve as the distraction component of the orthodontic treatment plan. The MDA Expander is best suited for the patient who has missing anterior teeth due to congenital absence or trauma. The MDA Expander incorporates a locking wire mechanism that allows for the appliance to be activated directly to the molar bands of the patient. Since its introduction over a year ago by Dr. Jim Hilgers and Steve Tracey, the MDA Expander has been an essential treatment plan for Class II cases. The MDA Expander has been shown to improve smile esthetics and reduce the treatment time for dependable molar distalization. MDA Expander Intraoral Splint

Figure 3. Removable external hook.

The MDA Expander offers a simplified palatal expansion appliance that has the power to disimpact and close good class II spaces. The MDA Expander incorporates a locking wire mechanism that allows for the appliance to be activated directly to the molar bands of the patient, improving smile esthetics and reducing the treatment time for dependable molar distalization.