overjet and permit the mandible to close into a Class I relationship without the anterior shift.

Phase I treatment is defined as early treatment with the intent to change skeletal relationships and to limit or eliminate a second phase of treatment. Unfortunately, the routine use of early (Phase I) treatment to resolve Class II (by mandibular “advancement”) or crowding (via bimaxillary inclined planes (both fixed and removable), chin-cups\textsuperscript{20}, Smart Wire fixed reverse labial bow\textsuperscript{21}, protraction facemasks\textsuperscript{14–18}, removable appliances with advancement springs and functional appliances. One of the most common techniques is to use a simple edgewise appliance (tubes on the molars and brackets on the incisors) to advance the incisors into a normal overjet. The force to advance these teeth can be produced by bending “advancing” or bulbous loops.

Another method involves compressing a rectangular super-elastic wire between the molar tube and incisor brackets on the incisors) to advance the incisors into a normal overjet. The force to advance these teeth can be produced by bending “advancing” or bulbous loops.

A sliding arch wire may also be used to accomplish this. A sliding arch wire is a rectangular super-elastic arch wire with a so-called ‘bimetric wire’ with a compressed open-coil spring against a required headgear tube attachment. (Note: Excess wire distal to the tube required for advancement.)

Fig. 1a and 1b: Alternative methods for advancing upper incisors have included: a) compression of a rectangular super-elastic arch wire between the molars and incisors; b) so-called ‘bimetric wire’ with a compressed open-coil spring against a required headgear tube attachment. (Note: Excess wire distal to the tube required for advancement.)

Fig. 2a–2c: Nine-year-old female with anterior crossbite and associated functional shift. Upper and lower 2 x 4 appliances were placed for leveling and alignment. Patient was noncompliant with Class III elastics. Quick Fix appliance advanced the upper incisors into favorable overjet in three months without dependence upon patient cooperation.

Quick Fix Device

The Quick Fix\textsuperscript{\textregistered} device is based on a typical 2 x 4 edgewise appliance and was designed for effective and efficient advancement of the maxillary incisors.\textsuperscript{24}

http://www.quickfixappliance.com

The appliance consists of a rectangular stainless-steel arch wire, open coil springs, arch locks and Side Swipe auxiliaries.

Look for Part II of this article to appear in an upcoming edition of Ortho Tribune.

Previous advancement methods

In the past, a variety of appliances and orthodontic mechanics have been used to correct anterior crossbites in the transitional dentition. This has included the use of inclined planes (both fixed and removable), chin-cups\textsuperscript{20}, Smart Wire fixed reverse labial bow\textsuperscript{21}, protraction facemasks\textsuperscript{14–18}, removable appliances with advancement springs and functional appliances.

One of the most common techniques is to use a simple edgewise appliance (tubes on the molars and brackets on the incisors) to advance the incisors into a normal overjet. The force to advance these teeth can be produced by bending “advancing” or bulbous loops.

Another method involves compressing a rectangular super-elastic wire between the molar tube and incisor brackets on the incisors) to advance the incisors into a normal overjet. The force to advance these teeth can be produced by bending “advancing” or bulbous loops.

Fig. 3a, 3b: a) Sliding arch wire advancement of the incisors typically requires four to five millimeters of additional arch wire length extending distal to the molar or headgear tube that will "poke" a patient’s cheeks. b) Resolution of this problem was achieved by the development of the Side Swipe Auxiliary that permitted cutting the wire "flush" to the molar tube while still providing the necessary "travel" length for adequate incisor advancement.
push the incisors labially (Fig. 2). Most often, four to five millimeters of wire must travel through the molar edgewise or headgear tube (e.g., bimetric arch20,21; Fig. 1b) and that additional length of "traveling" wire may also create significant soft-tissue trauma and discomfort. An alternative was sorely needed.

Development of the Side Swipe Auxiliary

The intent of the so-called Side Swipe Auxiliary was to eliminate painful cheek poking from the four to five millimeter extension of wire distal to the molar tubes (mentioned previously), yet still provide a sufficient length of traveling arch wire to track forward through molar tubes as the incisors are advanced (Fig. 5).20

The original construction of the Side Swipe involved a segment of .017" x .025" stainless-steel wire inserted through the shorter of the two tubes in a dual-tube rectangular auxiliary (a modification of the "auxiliary attachment"24). Next, a tube with a soldered hook was placed onto the wire and was either "crimped" or spot-welded in place (Fig. 4a). This concept was later simplified and miniaturized into its current state (Fig. 4b; American Orthodontics, Sheboygan, Wis.). Application of the Quick Fix device will be described in Part 2 in our next issue.

(Editors’ notes: Bowman has a financial interest in the Quick Fix Kit. A complete list of references will appear with Part 2 of this article.)

The One Book Every Orthodontist Needs

This groundbreaking book by Dr. Roger P. Levin, the world’s foremost authority on practice management, gives you everything you need to greatly improve your ortho practice:

- Increase efficiency and streamline operations
- Maximize production and profitability
- Boost referrals from dentists and patients
- Build a powerhouse ortho team
- Create a low-stress environment

Are you ready to experience the highest levels of success achieved by the best ortho practices? Then this is the book for you!

Dr. Levin will show you how to create a great ortho practice and a great ortho career. Use his expert insights on ortho management and marketing to take your practice to the next level!

To order online visit us at http://store.levingroup.com or call toll-free 888.973.0000

About the author

Dr. Bowman is a diplomate of the American Board of Orthodontics, a member of the Edward H. Angle Society of Orthodontists, a fellow of both the American and International College of Dentists and the Pierre Fauchard Academy International Honor Organization, a charter member of the World Federation of Orthodontists and is a regent of the American Association of Orthodontists Foundation. He developed and teaches the Straightwire course at the University of Michigan, is an adjunct associate professor at Saint Louis University and is a clinical assistant professor at Case Western Reserve University. He received the Angle Research Award in 2000 and the Alumni Merit Award from Saint Louis University in 2005.

Contact

Dr. S. Jay Bowman
Kalamazoo Orthodontics, P.C.
1514 West Milham Ave.
Portage, Mich. 49024
Phone: (269) 344-2466
E-mail: drjwyred@aol.com
www.kalamazooorthodontics.com

Figs. 4a and 4b: a) Development of the Side Swipe began with a segment of .017” x .025” stainless-steel wire inserted into a dual tube auxiliary and followed by a crimpable hook. b) This evolved into the current pre-formed auxiliary tube.