A 15-year-old female presented for orthodontic treatment with the complaint that “her fang was out of place.” Initially, traditional fixed appliances were offered however, this option was quickly rejected since the young lady was already self-conscious about her smile and didn’t want the added distraction of braces. An alternative treatment plan using ClearCorrect clear aligners was selected.

The patient had no medical problems and no dental problems other than a minimal amount of attached gingiva on the mandibular central incisors. Oral hygiene was excellent. Skeletally, she was Class I with a Class I molar relationship. The maxillary right canine was in crossbite, and maxillary and mandibular incisors were recumbent. Crowding was moderate in the maxillary arch and mild in the mandibular arch. Figures 1 through 5 show the pretreatment dentition.

After obtaining pretreatment orthodontic records and a signed informed consent form, treatment began with the Phase 0 aligners. Phase 0 is an important step since it allows the patient to become used to wearing aligners without having to deal with tooth soreness that is associated with tooth movement that begins with aligner 1A. Phase 0 aligners also allow the practitioner to verify the fit of the aligners prior to the fabrication of treatment aligners.
TREATMENT of an ANTERIOR CROSSBITE

by Julie Ann Staggers, DDS, MS Orthodontics
Should there be a problem with the fit of Phase 0 aligners, new impressions or scans of the teeth can be submitted. This bypasses the cost of fabricating new treatment aligners based on an initial inaccurate model. Managing costs is what allows ClearCorrect to deliver an exceptional product at a lower cost than their competitors.

Starting with aligner 1A, aligners were dispensed two at a time with each aligner being worn for three weeks. Each phase of treatment consists of four sets of aligners. During Phase 2, engagers were placed on the maxillary left canine and right second premolar and the mandibular right canine and left second premolar. Engagers can assist in specific tooth movements as well as improve the overall retention of the aligners in the mouth. It is helpful to bond the engagers by quadrants, and this can be done by cutting each engager template in half. Once the template is lightly coated with Vaseline, composite may be placed in the engager template with a PFI instrument. Applying a liquid bonding agent initially to the PFI keeps the composite from sticking to the PFI once the composite has been placed in the template. Each engager was cured with a light for 15 to 20 seconds, and any extra flash was removed with a composite finishing bur.

Treatment involved six phases for a total of 24 aligners and 16 months of treatment. No interproximal reduction was required. This patient was exceptionally motivated and maintained excellent oral hygiene throughout treatment. Retention involved aligners identical to the final treatment 6D aligner (with the engagers removed). Aesthetics were improved on the maxillary anterior teeth with a minor amount of enamel recontouring.

Treatment results were very good as seen in figures 6 to 10, with only a minor midline discrepancy present. A small amount of gingival recession occurred during treatment on the mandibular right central incisor. The patient was referred for a periodontal evaluation and possible gingival graft.

ClearCorrect clear aligners are a valuable tool in today’s orthodontic practice. The ClearCorrect doctor’s portal (dr.clearcorrect.com) is easy to navigate and allows a practitioner to view the status of every case submitted. The ability to upload all patient records is an added bonus. ClearComm also offers patient education tools and practice advertisement and promotion that can be downloaded as needed.
Dr. Staggers is a native of Keyser, West Virginia. She attended undergraduate at West Virginia University, graduating Summa Cum Laude and Phi Beta Kappa with a degree in Chemistry. Dr. Staggers graduated from the West Virginia University School of Dentistry in 1986 and obtained a Master of Science in Orthodontics in 1988. Prior to coming to Winchester, she was on faculty at West Virginia University for three years and at The Medical College of Georgia for three years. Dr. Staggers opened her Winchester practice in March 1993. She is board certified by the American Board of Orthodontics. Dr. Staggers has been a visiting professor of orthodontics at Vanderbilt University in Nashville, TN since 1992. Dr. Staggers has published numerous articles in various journals. She is also currently a consultant for the American Journal of Orthodontics and Dentofacial Orthopedics, and The Angle Orthodontist. Dr. Staggers is married to David Worthington, an engineer for the U.S. Army Corps of Engineers.