T he Nite-Guide® technique is a practical clinical solution to first-phase early treatment and has the potential to prevent future relapse. The technique involves various sized appliances that have preformed sockets arranged in ideal Class I occlusions. These sockets serve as templates that gradually guide erupting adult teeth into their proper positions.

In this process they exert lateral forces against adjacent teeth, which significantly increases the arch, after which adult periodontal fiber formation takes place and stabilizes this ideal occlusion. This procedure mimics the natural eruption process described by Mooree’s for normal dentitions.

At the same time, the adult incisors are prevented from super-erupting into an unacceptable overbite and creating mandibular advancement when the overjet is excessive. It has been shown that 95 percent of children are candidates for this procedure, as determined in a major study of 489 subjects at 5 years of age.

There are specific signs in the deciduous dentition that will lead to malocclusions at a later age. These signs serve as indications for the Nite-Guide procedure and are as follows:

- Closed incisal contacts or slight crowding of the incisors to 1 to 2
- Deciduous overbite of 1.25 mm or more
- Deciduous overjet of 3 mm or more
- TMJ sounds of clicking or crepitus that have an accompanying overjet and overbite
- A gummy smile in excess of 2.5 mm with an accompanying overbite

Research has shown that the Nite-Guide procedure can eliminate or greatly minimize all of the above potential characteristics that can result in later malocclusions. In the event the second phase of fixed orthodontics is needed, the treatment is usually of minor complexity.

Results from a study of 107 5-year-old patients using the Nite-Guide technique from 5.1 to 8.4 years showed successful correction of the overbite, overjet and crowding in the 69 percent of patients who wore the appliance to completion. No treatment fees were charged for the procedure and patients wore the appliances only while sleeping.

In another study of 45 Nite-Guide patients, it was shown that the treated sample experienced a 540 percent decrease in TMJ symptoms by 14 years of age when compared to the control group. Need for further treatment after Nite-Guide use in 117 patients when compared to a non-treated control group of 104 individuals was 1 percent for mandibular crowding (47 percent for controls), 2 percent for maxillary crowding (52 percent for controls), 0 percent for overjet (greater than 5 mm) (50 percent for controls); 1 percent for overbite (greater than 5 mm) (58 percent for controls); and 2 percent for overbite and open-bite (74 percent for controls).

In conclusion, there was little treatment needed at 8.4 years of age when compared to the control sample while there were no differences between the two groups initially. The results from these studies indicate the Nite-Guide interceptive technique can be a viable stand-alone or first-phase procedure.

The Nite-Guide method involves appointments of five to 10 minutes every three months during the corrective phase, lasting about two years. Retention visits, following the active stage until patient dismissal at 12 years of age, are at six-month intervals.

Usually two appliances are used, both larger than the dentition, provided crowding is anticipated, to guide the larger erupting adult teeth into a perfect occlusion. The first appliance (“C” series) is usually two half-sizes larger than the measurement and is worn passively for about five months while the lower central incisors erupt.

The second and last appliance used (“G” appliance) is usually three half-sizes larger than the first and is used until the patient is dismissed. The “G” series is a closed version of the “C” series and encourages nasal breathing. The Nite-Guide technique involves only nighttime passive wear while the child sleeps.

A patient with a 5 mm deciduous overbite and an excessive deciduous gummy smile is shown in the figures above. The final result shows significant correction during nighttime-only wear for 15 months and a retention period of 16 months.

Conclusion

The Nite-Guide procedure is a viable interceptive technique using natural eruptive forces and normal jaw growth to produce an ideal adult occlusion. Crowding, rotations, excessive overbite, overjet, TMJ and gummy smiles can be prevented, resulting in healthier permanent dentitions.

For more information, visit www.ortho-tain.com or call (800) 541-6612.

References