

INTERCEPTIVE ORTHODONTICS IN THE 5 TO 7 YEAR OLD WITH THE NITE-GUIDE[®] TECHNIQUE

Theory - The Nite-Guide[®] appliance uses the natural eruptive forces of the incoming permanent incisors to guide them into the mouth without rotation or displacements, forcing natural arch development to the same extent as published research has shown to exist in non-treated ideal dentition. The Nite-Guide[®] appliance acts as a template to guide erupting adult incisors into correct alignment and exerts little force of its own since it is worn only passively while sleeping. The appliance then holds the teeth in place while the adult collagenous fibers develop which help to stabilize the correction. An excessive overjet is corrected at the same time by adjusting the jaw relation similar to other functional appliances and maintaining this correct position until jaw growth completely compensates for the positional change. The permanent incisors are also intercepted and prevented from over-erupting beyond a normal overbite relation which can reduce the level of gingival display (by the amount of overbite prevented from developing).

How To Measure - The pointer of the measuring guide is placed at the mesial of the upper left deciduous canine, while the ruler is bent along the incisal edges (or where the incisal edges should be positioned). The size is indicated at the mesial of the upper right canine. A larger size appliance than measured will be required, provided crowding of the adult teeth is anticipated, so that natural arch expansion is encouraged and not restricted. A size that is two ½ sizes larger is usually inserted (the deciduous dentition appliance “C” Series) and the child is told to wear it passively only while sleeping. After about 3 to 4 months (as the lower laterals begin their eruption), an increase in size of usually three ½ sizes is inserted using a mixed dentition appliance “G” Series. This will further encourage the full expansion of the arch in order to gain 4 to 5mm. of arch increase. If further crowding correction is necessary at this time, 2mm. can be stripped from the mesial of each lower deciduous canine (on the mesial of the first deciduous molar in the upper arch) making use of the available leeway space.

Timing - The ideal time to start this procedure is when the lower permanent central incisor first breaks tissue and is continued until the upper laterals are fully erupted for at least 6 months. This allows for complete adult collagenous fiber formation to occur, which enhances retention.

Case Selection

- Any 5 to 7 year old with a deciduous overbite that exceeds 1.5mm.
- Any child who has an arch length shortage up to 7mm. (or up to 4mm. of expected adult crowding). These are children with little or no deciduous incisal spaces or up to about 1 or 2mm. of deciduous crowding.
- Any overjet of 3mm. or more.
- Children that have a deciduous gingival display exceeding 4.25mm. with an excessive overbite.

References

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4. Simons, M.E. and Joondeph, D.R., Change in overbite: A ten-year postretention study. *Am.J. Orthod.*, 64: 349-367, 1973.

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