Case Presentation

Modified Twin Block appliance Bite Jumping Screw
Case presentation of a Class II/1 malocclusion treated with the modified Twin Block

Twin Block appliance

Class II Division 1 malocclusion as presented in Figure 1 and 2 is the most frequent problem in the orthodontic practice. During the last ten years treatment with Twin Block functional appliance has therefore gained popularity. The Twin Block appliance, described by Clark in 1982, is currently the most popular functional appliance in the world.

The bite registration is generally taken with the incisors in an edge to-edge position. Different clinicians have suggested that a more gradual advancement of the bite may provide a greater orthopedic effect with less incisor tilting in Class II, division 1 cases. Smaller increments of mandibular advancement also reduce tension in the craniomandibular musculature, thus improving patient comfort, speech, and compliance, and increasing the correct appliance position being maintained during sleep.

Modified Twin Block appliance

All other functional appliances can only be reactivated by laboratory reconstruction or adjustments, or by timeconsuming chairside additions of acrylic, with the accompanying risk of loose monomer in the intraoral cavity. The modified Twin Block according to Dr. Marc Geserick allows controlled, stepwise bite advancements. The Bite Jumping screw (Forestadent, Germany) is incorporated in the maxillary appliance blocks. The screw system allows bite reactivations of as much as 6 mm.

Recommendation

Recommendation of activation in Class II/1 cases:

1. Initial construction bite with maximum mandibular advancement of a half premolar width
2. Activation of the Bite Jumping screw by the orthodontist of 10 turns (2 mm) after 8 – 10 weeks
3. Second activation up to 10 turns after (2 mm) 10 weeks of first activation
4. Third activation as needed to correct the malocclusion to Class I molar relationship and reduce overjet as presented in Figure 4.

Product information

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