

OPEN BITE: THE NEMESIS REVISITED

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When considering facial abnormalities, open bite is the most resistant to long-term correction. The etiology can be dental alone but most commonly the skeleton is the cause either from over growth conditions, resorptive conditions or trauma. Identification and elimination of the cause are keys to successful treatment. Determining the exact etiology is difficult especially with multi-factorial conditions. Physiological adaptation requires complex neuro-muscular and skeletal programming which is incompletely understood but is critically necessary for long-term stability.

Orthognathic surgery has become popular because it permits satisfactory correction of many previously untreatable conditions including open bite. Anterior segmental osteotomies conducted in the maxilla and mandible are highly successful in the correction open bite. To address the criticism of an excessive tooth and gingival display following these procedures, the posterior maxillary osteotomy was developed. This procedure was modified by many and eventually was superceded by the complete maxillary osteotomy performed as a single piece or in multiple segments. Today the maxillary osteotomy is often accompanied by simultaneous mobilization of the mandible when correcting open bite.

This presentation will demonstrate long term stability of open bite with a variety of surgical and orthodontic procedures. The importance of pre and post-operative orthodontics will be stressed and demonstrated. The potential causes of relapse including orthodontic preparation, surgically related issues, inadequate retention, growth, condylitis and failure to adapt will also be discussed.