

**Airflow and the Mandibular Orthotic**  
***The Reasoning and Rationale for PRI Recommendations***  
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***PRI MOOO (Mandibular Occipital Occlusal Orthotic)***

Reasoning for consideration:

- 1) Occlusal crossbites, posterior or anterior
- 2) Temporal instability (tinnitus, ringing of the ears, sensitivity to high auditory frequencies, retro-orbital eye pain or pressure, binocular vergence insufficiency, eye squint especially noted on left side, mastoid imbalance secondary to unilateral hyperactivity of SCM, visible temporal fossa asymmetry, vestibule asymmetry)
- 3) Temporal Mandibular Joint (TMJ) pain or TMJ discal pathological symptomology (clicking, popping, jerking, locking, lateral deviation upon opening of mandible, hyperactive tongue)
- 4) Trismus tension, temporalis/masseter 'tightness' or restricted opening without moving the head forward
- 5) Poor linguistic phonetic expression (tongue thrust, bilateral pterygoid overactivity, imbalanced glossal strength)

Rationale:

This appliance or orthotic, through its bilateral design of lateral translatory balance, provides contact and periodontal sense, through both sides of the mandibular and maxillary arches, as well as the anterior pre-maxillary region of the mouth, for anterior guidance. It is designed for those who require occipital atlanto reference, from vertical dimension and anterior guidance, that compliments and guides cervical, temporal (cranial) and mandibular function, from a centric mandibular state, a neutral cranial state, and a symmetric maxillary state. It is a very helpful in providing references for nasopharyngeal air flow management.

***PRI MMOO (Mandibular Molar Occlusal Orthotic)***

Reasoning for consideration:

- 1) Open bites, with or without permanent first and second molars
- 2) Oral facial asymmetry that includes deviation of the mandible to one side of the face along with mandibular canting
- 3) Anterior open bites complimenting hyper-glossal function and glossal development (tongue thrusting)
- 4) Forward head and backward mid cervical vestibular and visual processing
- 5) Nocturnal clenching, grinding, trismic parafunctional history

Rationale:

This appliance or orthotic, through its bilateral design for individualized maxillary molar lingual cusp sense and mandibular cuspid buccal surface guidance, provides pterygoid independent function from the anterior neck muscles and tongue. This guidance is provided by permitting air flow through the oral cavity and nasal apertures without advancing the head forward, the tongue forward, the base of the tongue back, the mandible back, the hyoid back and down with respect to the mandible, and the larynx up and forward with respect to the manubrium. It is a very helpful in providing references for oropharyngeal air flow management.

### ***EMA (Elastic Mandibular Advancement Orthotic)***

Reasoning for consideration:

- 1) Obstructive sleep apnea (OSA)
- 2) Thoracic inlet syndrome (TIS)
- 3) Swallowing difficulty
- 4) Vocal cord dysfunction
- 5) Nasopharyngeal drainage or oropharyngeal inflammation (adenoids)

Rationale:

This appliance or orthotic, through its mandibular and maxillary components, is designed to advance the cranium back (and the mandible forward in the field of Dentistry) and reduce posterior cranial and oral compression that is so often seen with individuals who have difficulty in regulating intermittent positive pressure above the thoracic inlet and below the thoracic outlet. It is a very helpful in providing references for laryngopharyngeal air flow management.