Nasal and Oropharyngeal Airway Development Using the Homeoblock (TM) Intraoral Appliance

The physiological systems of the body are self-regulating and are capable of self-correction. The external body is programmed for symmetry, given the opportunity our body will correct in the direction of improved symmetry and function.

Case study 1

This patient presented with difficulty breathing through his left nostril.
Left external nasal valve improved after 12 months Homeoblock treatment.

Before

After

Left nasal valve stenosis
Improved left internal valve patency after 12 months Treatment

Red shows improved nasal airway size and symmetry and hence enhanced function. CBCT scans are registered using bone threshold.
Before                                                              After

Improved pharyngeal airway symmetry, tone and hence function after 12 months

Reduced inflammation posterior tongue and improved airway tone at the posterior pharyngeal wall on the left side.

Before                                                                 After

Case Study II

This patient presented with right side facial underdevelopment
Consistent with the lack of facial development we see a loss of pharyngeal airway tone on the patient’s right side.

CBCT scans are registered using bone threshold. Red shows improved airway symmetry.
Improved airway tone, reduced lateral pharyngeal tissue, after 12 months.

The red shows that the bone remodeled along with the airway and the ramus and gonial angle of the mandible are wider particularly on the right side.
Discussion

**Rationale:** Upper airway muscle function plays a role in upper airway patency. Homeoblock™ appliance therapy alters muscle function and can produce improved muscle tone similar to oropharyngeal exercises provided in the article published by Guimaeres. Appliance therapy alters breathing, swallowing and chewing hence the oral environment which provides epigenetic response upregulating genes for development. Furthermore, enhanced symmetry can result in autonomic system balance and system coherence. System coherence results in reduction in cortisol. Cortisol levels are directly related to inflammation. Reducing cortisol can reduce inflammation. Appliance therapy along with tongue exercises activates the vagus nerve through the palatoglossal arch and palatoglossal muscle when the sides of the tongue are lifted. The vagus nerve is your calming relaxation nerve. When the nerve is activated it releases acetylcholine, which reduces the production of inflammatory cytokines.

References

2- Singh GD, Krunholtz JA, Epigenetic Orthodontics in Adults; Smile Foundation Chatsworth California 2009, Selane Products Inc.
4- Pickering PG, Phil D, Stress, Inflammation and Hypertension; Journal of Clinical Hypertension; Vol 9 Issue 7, 567-71 july 2007
5- Hyman M, The Ultramind solution, Scribner 2009 page 181