

New Mandibular Advancement Device (Bestmad) in the Treatment of Obstructive Sleep Apnea Syndrome: Medical Images

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Medical Image

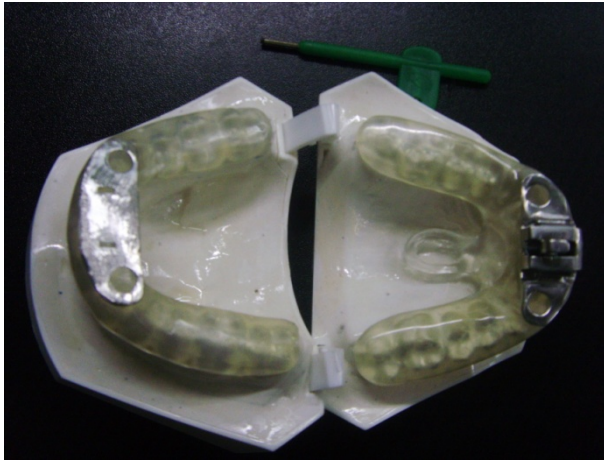


Figure 1: BestMAD, a new tailor-made patient device.



Figure 2: The screw (MDSA® Pty Ltd, Australia) connecting the two arches of the BestMAD.



Figure 3: Detail of lateral movements allowed by the BestMAD.



Figure 4: The proprioceptive indicator placed on the BestMAD.

Description

The BestMAD is a new tailor-made patient device, structured in two arches that run on each other and a proprioceptive indicator or as reference point for the anterior positioning of the tongue. The device determines a mandibular and tongue base advancement associated with the activation of the genioglossus muscle. It reduces the resistance of the upper airways, expanding the size of the oropharyngeal lumen and is therefore indicated for the symptomatic treatment of sleep apnea and snoring.

The screw (MDSA® Pty Ltd, Australia) connecting the two arches of the BestMAD adjusts the protrusion (2 mm per revolution of the screw) and allows the physiological movements of laterality during REM sleep. The protrusion is adjustable from a minimum of 4 mm to a maximum of 10 mm.

The proprioceptive indicator placed on the BestMAD consists in a tongue perforated platform with holes of increasing diameter which starts from the top of the superior arch and reaches the anterior part of the hard palate. The indicator induces a continuous anterior stimulation of the tongue, expanding the pharyngeal airway space (PAS) during sleep.