

# Narrow-Bladed “Endo” Sagittal Split Osteotomy Retractor

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## Abstract

### Keywords

- ▶ osteotomy
- ▶ sagittal split ramus
- ▶ instrument
- ▶ surgical

A modification of the Obwegeser sagittal split retractor is presented. It is slender while still protecting the soft tissues and is particularly suitable for endoscopically assisted surgery.

The narrow- and wide-channeled retractors designed by Hugo L. Obwegeser used during his sagittal split osteotomy<sup>1</sup> have stood the test of half a century. These retractors have been designed to expose the surgical field and to protect the facial artery and mandibular branch of the facial nerve.<sup>2</sup> Modifications, apart from manufacturers' deviations from the original, have rarely been described. The original Obwegeser retractors are distributed by KLS-Martin (Jacksonville, FL) and Medicon (Tuttlingen, Germany).

When coming across the article of Matsushita in the February 2015 issue of this journal,<sup>3</sup> in which the author describes a wider spatula-like modification, I considered it interesting to publish on a narrower gutter-shaped modification.<sup>4,5</sup> This one was designed for the endoscopic approach. However, many colleagues and myself find the instrument useful for “open-sky” sagittal split ramus osteotomies because it has a favorable angle of attack and a sharp tip that allows for easy subperiosteal dissection (both buccally and lingually; ▶ **Figs. 1** and **2**). It snugly fits the lower and posterior border (▶ **Fig. 3**), and it protects the soft tissues not by being wider, but by its “guarding” relationship when placed against the bony surface (▶ **Figs. 3** and **4**). Since its design nearly 10 years ago, I have performed approximately 800 bilateral and unilateral sagittal split osteotomies with it and find it highly effective. Test models were made by DePuy Synthes (Solo-

thurn, Switzerland). The instrument is available at Surgi-Tec NV, Sint-Denijs-Westrem, Belgium ([www.surgi-tec.com](http://www.surgi-tec.com)).



**Fig. 1** 3D graphical representation of the “endo BSSO retractor.” The lower shaft is 7 mm wide.

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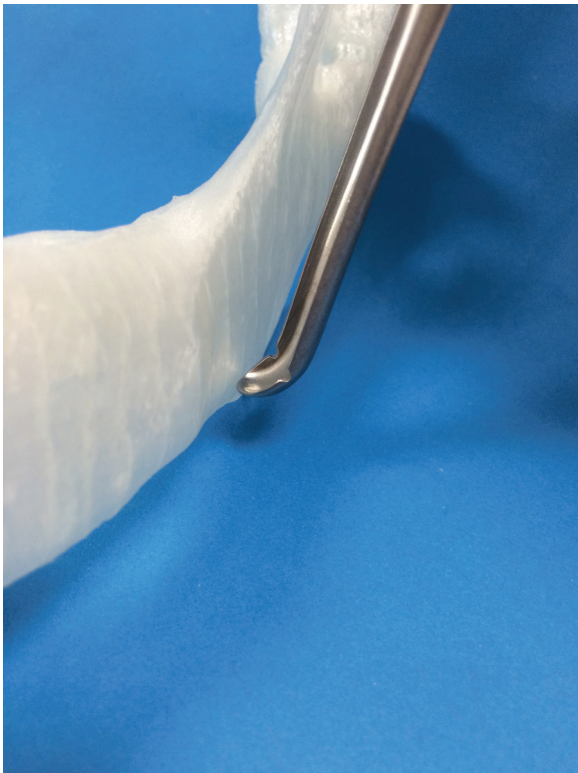
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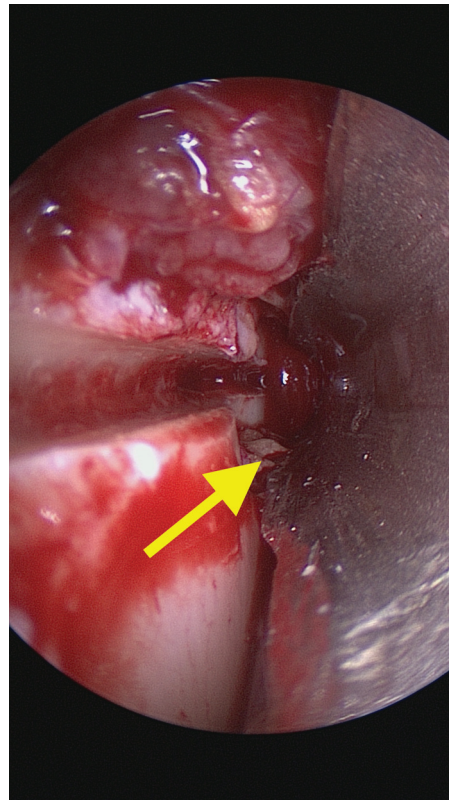
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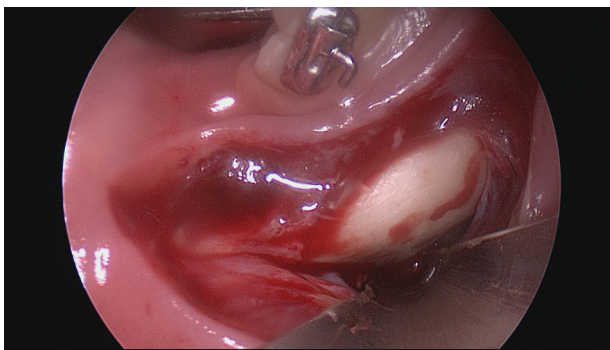
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**Fig. 2** Angle of attack to the bony surface and the sharp tip.



**Fig. 4** The “endo BSSO retractor” providing efficient access and effective soft-tissue protection from the Lindemann bur (endoscopic view in the lingual tunnel—arrow is pointing at the fat pad surrounding the mandibular foramen).



**Fig. 3** The instrument fits well around the mandibular border and prevents soft-tissue prolapse into the danger area.

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