

近年では光学印象が一般的なものになってきています。

従来の印象と比べて、有利な点が沢山出てきました。

それを踏まえて、以下の論文の下線部 (**Conclusion**) を和訳してください。

# Intraoral scanners in dentistry: a review of the current literature



Francesco Mangano<sup>1\*</sup> , Andrea Gandolfi<sup>2</sup>, Giuseppe Luongo<sup>3</sup> and Silvia Logozzo<sup>4,5</sup>

## Abstract

**Background:** Intraoral scanners (IOS) are devices for capturing direct optical impressions in dentistry. The purpose of this narrative review on the use of IOS was to: (1) identify the advantages/disadvantages of using optical impressions compared to conventional impressions; (2) investigate if optical impressions are as accurate as conventional impressions; (3) evaluate the differences between the IOS currently available commercially; (4) determine the current clinical applications/limitations in the use of IOS.

**Methods:** Electronic database searches were performed using specific keywords and MeSH terms. The searches were confined to full-text articles written in English and published in peer-reviewed journals between January 2007 and June 2017.

**Results:** One hundred thirty-two studies were included in the present review; among them, 20 were previous literature reviews, 78 were in vivo clinical studies (6 randomized controlled/crossover trials, 31 controlled/comparative studies; 24 cohort studies/case series; 17 case reports) and 34 were in vitro comparative studies.

**Conclusions:** Optical impressions reduce patient discomfort; IOS are time-efficient and simplify clinical procedures for the dentist, eliminating plaster models and allowing better communication with the dental technician and with patients; however, with IOS, it can be difficult to detect deep margin lines in prepared teeth and/or in case of bleeding, there is a learning curve, and there are purchasing and managing costs. The current IOS are sufficiently accurate for capturing impressions for fabricating a whole series of prosthetic restorations (inlays/onlays, copings and frameworks, single crowns and fixed partial dentures) on both natural teeth and implants; in addition, they can be used for smile design, and to fabricate posts and cores, removable partial prostheses and obturators. The literature to date does not support the use of IOS in long-span restorations with natural teeth or implants. Finally, IOS can be integrated in implant dentistry for guided surgery and in orthodontics for fabricating aligners and custom-made devices.

**Keywords:** Intraoral scanners, Optical impressions, Accuracy, Time efficiency, Clinical use