

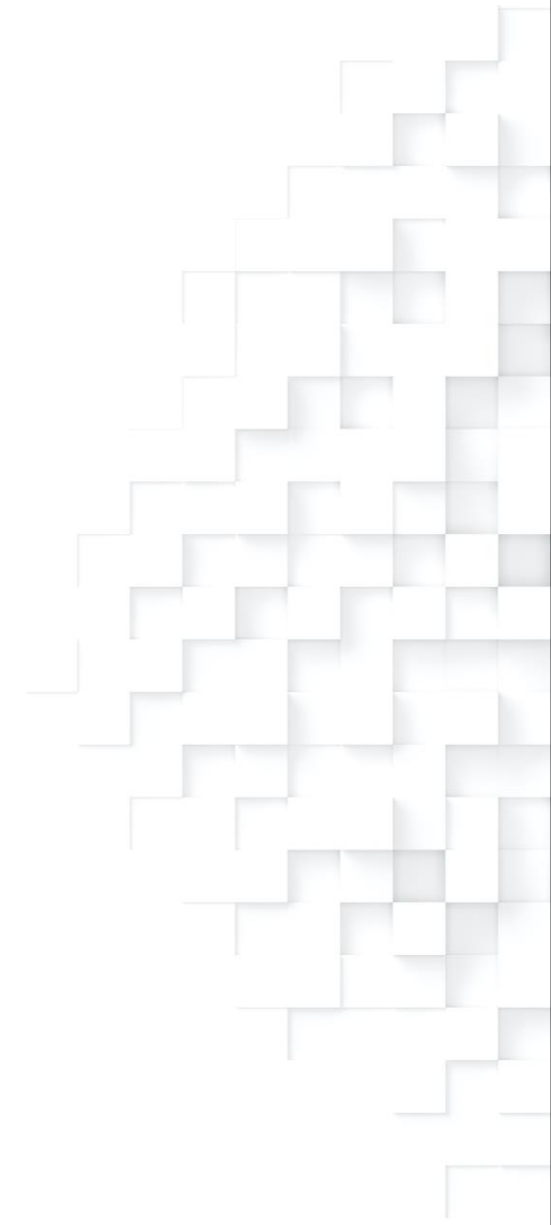
# Heron™ IOS

## MASTERING INTRAORAL SCANNING

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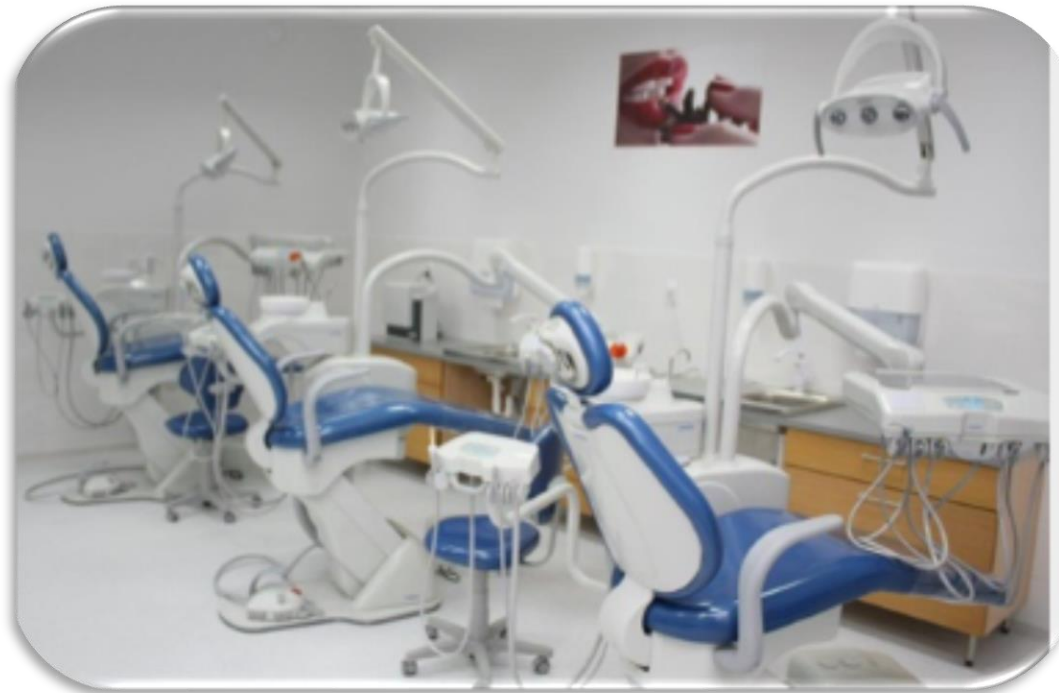
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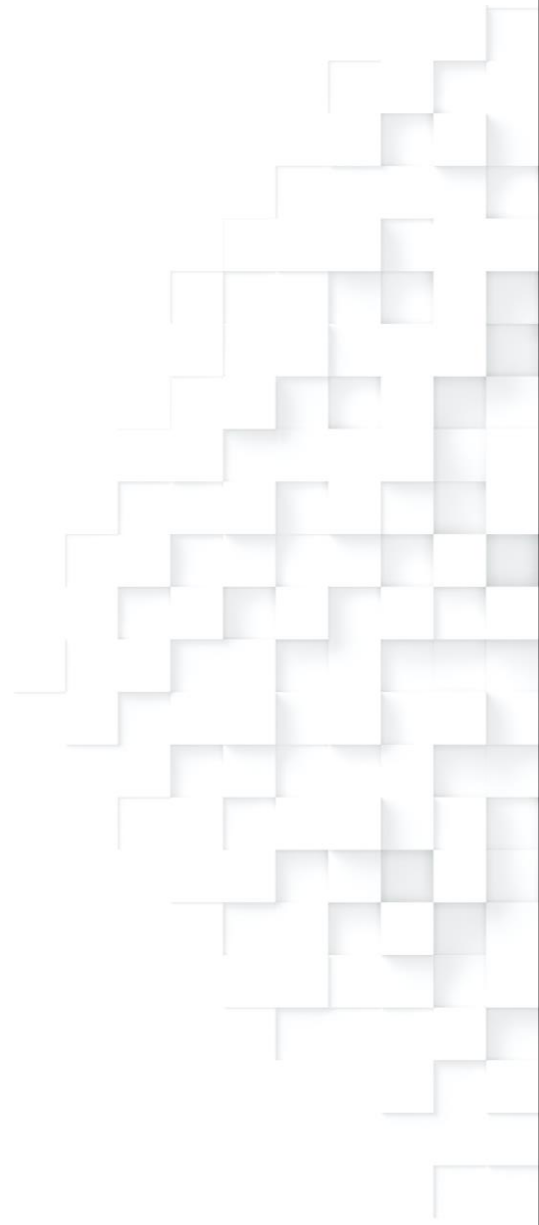
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Faculty of Medical Sciences,  
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**DentiMax Dental Office,  
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Introduction in digital dentistry and intraoral scanning

A

Conventional vs. Digital impressions. Advantages and application of intraoral scanner

G

Scanning path strategies

E

Management of soft tissues and moisture control during scanning

N

How to recognize good scans

D

Accuracy and precision of scanning

A

Bite registration tips and management of vertical dimension during scanning

Clinical cases presentation







THE ROAD OF SUCCESS BEGINS WITH GOOD IMPRESSION



SUCCESS



# WHICH IMPRESSIONS DO PATIENT PREFER ???

DIGITAL



vs.



CONVENTIONAL

90% higher satisfaction level with digital impressions. Digital impressions tend to reduce repeat visits and retreatment, while increasing treatment effectiveness. Patients will benefit from more comfort and a pleasant experience in the dentist's chair

Yuzbasioglu et al. BMC Oral Health 2014, 14:10  
http://www.biomedcentral.com/1472-6831/14/10



## RESEARCH ARTICLE

## Open Access

## Comparison of digital and conventional impression techniques: evaluation of patients' perception, treatment comfort, effectiveness and clinical outcomes

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### Abstract

**Background:** The purpose of this study was to compare two impression techniques from the perspective of patient preferences and treatment comfort.

**Methods:** Twenty-four (12 male, 12 female) subjects who had no previous experience with either conventional or digital impression participated in this study. Conventional impressions of maxillary and mandibular dental arches were taken with a polyether impression material (Impregum, 3 M ESPE), and bite registrations were made with polysiloxane bite registration material (Futar D, Kettenbach). Two weeks later, digital impressions and bite scans were performed using an intra-oral scanner (CEREC Omnicam, Sirona). Immediately after the impressions were made, the subjects' attitudes, preferences and perceptions towards impression techniques were evaluated using a standardized questionnaire. The perceived source of stress was evaluated using the State-Trait Anxiety Scale. Processing steps of the impression techniques (tray selection, working time etc.) were recorded in seconds. Statistical analyses were performed with the Wilcoxon Rank test, and  $p < 0.05$  was considered significant.

**Results:** There were significant differences among the groups ( $p < 0.05$ ) in terms of total working time and processing steps. Patients stated that digital impressions were more comfortable than conventional techniques.

**Conclusions:** Digital impressions resulted in a more time-efficient technique than conventional impressions. Patients preferred the digital impression technique rather than conventional techniques.

**Keywords:** Digital impression, Clinical efficiency, Patient comfort, Patient preference

### Background

The introduction of computer-aided design/computer aided manufacturing (CAD/CAM) technology in dentistry has resulted in more accurate manufacturing of prosthetic frameworks, and greater accuracy of dental restorations, and the technology has improved since the 1980s [1,2]. The development strategy of CAD/CAM techniques included automating the production process and optimizing the quality of restorations by using new

and precise restorations using CAD/CAM technology [4-7].

According to the 8th edition of The Glossary of Prosthodontics Terms, "impression" is defined as "a negative likeness or copy in reverse of the surface of an object; an imprint of the teeth and adjacent structures for use in dentistry" [8]. The accuracy of the impression depends on the materials themselves [9-13], impression tray types [14-16], and impression techniques [17-19]. Each step in

## ADVANTAGES OF INTRAORAL SCANNING

90% higher satisfaction level with digital impressions.

- Less patient discomfort
- Time efficient
- Simplified clinical procedures
- no more plaster cast and storage
- Better communication with the lab and patient

# APPLICATION OF INTRAORAL SCANNERS

Crowns, bridges, inlays, onlays, veneers, implant abutments

Partial removable and complete dentures

Surgical guides, bite splints, sleep and orthodontic appliances, aligners, smile designs