

THE JOURNAL OF PROSTHODONTICS AND DENTAL MATERIALS

The Official e-publication of Indian Prosthodontic Society

MUMBAI - NAVI MUMBAI BRANCH

Visualize The Invisibles- Part 1

Dr. Charushila S. Sardar¹

1_{Professor,}

Department of Prosthodontics,

School of Dentistry, D.Y. Patil Deemed to be

University Nerul, Navi- Mumbai.

Keywords: Digitization, Occlusal Interferences, Occlusal indicators.

Citation: Sardar CS. Visualize the Invisibles-part 1. J Prosthodont Dent Material 2023;4(1):1-2.

The aim of Prosthodontics is function, aesthetics and precision. The success of any prosthesis depends on the occlusal harmony & comfort. Disharmonious occlusal contacts can lead to discomfort during mastication.

Any premature contacts or occlusal interferences of teeth will cause pain during maximum intercuspation or excursive jaw movements. An occlusal interference of even a few microns can trigger severe irritation which can lead to pain, mobility, wear facets, widening of periodontal ligament, temporomandibular joint pain and myalgia.¹

Occlusal interferences are known factors that prevents a stable and harmonious occlusion.²

Occlusal indicators help in identifying occlusal contacts, recording and transferring this maxillo- mandibular relationship onto an articulator. Many such indicators are used to identify and record these premature occlusal contacts without measuring the occlusal forces but the Digital Occlusal Analysis systems have made it possible.

Occlusal testing materials/Occlusal indicators are classified as³

- 1. Qualitative / Non digital
- 2. Quantitative materials / Digital
- Qualitative/Non digital/Conventional indicators are-Articulating papers, film, silk, high spot indicators, wax, foil, metallic shimstock etc.
- 2. Quantitative/Digital indictors are-

T-scan, Photo occlusion, Virtual Dental Patient, Occlusense

With the advent of Digital technology and innovations of newer dental materials, Digital Dentistry has made its presence felt in all areas of dental procedures with speed and precision.

T-Scan developed by Maness et al.in 1984 was the prime point of digital occlusal evolution. Many studies since the 1980's have researched the various T-Scan versions, which inspired the manufacturer to improve the system that's more accurate, repeatable and precise.

T-Scan can be considered superior for diagnosis and planning an extended range of occlusal disharmonies than conventional techniques.^{4,5}

Occlusense was introduced in 2019. Developed by Dr. Jean Bausch, it provides the best of both conventional and digital registration of occlusal forces in a single system.

REFERENCES

- 1. Sharma A, Rahul GR, Poduval ST, Shetty K et al. History of materials used for recording static and dynamic marks: for literature review. J Clin Exp Dent. 2013; 5(1)48-53.
- 2. The Glossary of Prosthodontic Terms: Ninth Edition. J Prosthet Dent. 2017 May;117(5S):e1- e105. doi: 10.1016/j.prosdent.2016.12.001.
- 3. Mir SN, Choudhary A, Jagdeesh HG. Occlusal Indicators-Chasing blue marks? a review. TMU J.Dent. 2014;1(3):92-95.
- 4. Koos B, Godt A, Schille C, Göz G. Precision of an instrumentation-based Method of Analyzing Occlusion and its Resulting Distribution of Forces in the Dental Arch. J Orofac Orthop. 2010;71(6):403-410. doi:10.1007/s00056-010-1023-7
- 5. Andrus R, Qian F, Weir D, Schneider R, Huber L, Kerstein RB. Comparison of results of traditional occlusal adjustment technique with computer-aided occlusal adjustment technique. Adv Dent Tech. 2019;1(2):43-53.