

3D Printing in Clinical Dentistry

We live in a new era in which technology significantly impacts our personal and professional lives, and dentistry is no exception. Dentistry has changed with this transforming and rapidly moving wave of “digital dentistry,” and additive manufacturing, also known as *3D printing*, is the newest addition.

3D printing provides unique advantages such as improved accuracy, high efficiency, and cost-effectiveness; most importantly, it also facilitates customization. As the market moves to expand and support its use in our daily practice, understanding the fundamental information about 3D-printing technology, its current limitations, and future potential is essential for us and our teams. As we all try to learn this new technology and implement it correctly and accurately in our workflow, having a practical and reliable source of information can be extremely useful.

This special issue aims to provide evidence-based and reliable information about 3D printing in clinical dentistry, creating a platform for sharing the newest findings, innovations, improvements, and potential for this fascinating technology. In this respect, authors who are experts in various aspects of 3D printing contributed to the special issue with invited review articles, covering topics on additive manufacturing of polymers, metals, ceramics, and dentures, as well as mechanisms that can be utilized and standards that should be followed. In addition, benchmark peer-reviewed *in vitro* studies and technique articles are included to provide insights on laboratory findings obtained in standardized conditions as well as useful tips for clinicians in daily practice.

As we continue to witness the evolution of 3D-printing technology, we are confident that it will play a crucial role in delivering customized dental care for all patients.

We would like to thank all of the authors who devoted their valuable time to summarizing and sharing their expertise, findings, and innovative ideas with us in this special issue. We could never have achieved this supplement without you.

Amirali Zandinejad, DDS, MSc

Private practice, Arlington, Texas, USA; Department of Prosthodontics, School of Medicine and Dentistry, University of Rochester, Rochester, New York, USA.

Burak Yilmaz, DDS, PhD

Research Laboratory for Digital Dental Technologies, Department of Reconstructive Dentistry and Gerodontology, Department of Restorative, Preventive, and Pediatric Dentistry, School of Dental Medicine, University of Bern, Bern, Switzerland.

doi: 10.11607/ijp.2024.s1.e