



FDI Policy Statement

Digital Dentistry

Keywords:

Data
Digital dentistry
Digital health
Interoperability
Standards

Context

Digital dentistry integrates a wide array of technologies into dental care and management. These include digital devices for oral health monitoring, disease detection and risk assessment, patient education and teledentistry. Additionally, it encompasses scanners and imaging tools to digitise oral structures, CAD/CAM systems for designing and manufacturing dental restorations, models and appliances, virtual simulations for enhanced treatment planning and communication, computer-assisted surgical navigation, electronic health records and artificial intelligence. The primary goal of employing these digital technologies is to enhance the quality, safety and efficiency of oral healthcare.

Scope

This policy statement aims to encourage dental professionals, educators, researchers and policymakers to embrace advancements and address the challenges of digital dentistry. It seeks to guide stakeholders in adopting digital technologies when beneficial while responsibly and effectively mitigating risks for the benefit of patients, providers and society.

Definitions

Digital Dentistry: the use of digital technologies, including digital interventions, services and applications, to address oral health challenges and needs.^{1,2}

Principles

Digital dentistry should be evidence based, outcome driven and of high quality while remaining patient-centred, ethical, fair and inclusive. Its adoption should be supported by robust governance that safeguards privacy and data security.

Interoperability and sustainability are essential, and continuous professional development is needed to balance digital tools with clinical judgement.

Policy

FDI recommends dental professionals, educators, researchers, manufacturers and policymakers:

- Align digital dentistry with primary healthcare and global oral health strategies.
- Critically evaluate the evidence supporting digital dentistry applications.
- Support user-friendly technologies that are accessible to both providers and patients, to promote equity and fairness of oral healthcare.
- Provide, participate in and consider education and training opportunities to employ digital technologies while retaining professional judgement and responsible patient management.
- Develop and integrate a comprehensive curriculum on digital dentistry into undergraduate, postgraduate and professional dental education programmes.
- Establish and comply with legal and regulatory frameworks that maintain privacy while fostering safe collection, storage of and access to data as the basis for many digital dentistry technologies, research and development.
- Support the development and use of relevant standards to ensure the quality, effectiveness, safety, interoperability and applicability of digital dentistry for the improvement of oral health.

Disclaimer

The information in this policy was based on the best available scientific evidence at the time. It may be interpreted to reflect prevailing cultural sensitivities and socio-economic factors.

REFERENCES

1. WHO. Classification of digital interventions, services and applications in health: a shared language to describe the uses of digital technology for health. WHO; 2023 2nd edition.
2. WHO. Global strategy on digital health 2020-2025. WHO; 2021.