

Global dentistry goes digital

Highlights from FDI 2025

The FDI World Dental Congress 2025, held in Shanghai from 9–12 September, brought together dental professionals from around the globe to address pressing challenges and innovations in oral health. Here are the key findings and highlights from the event.

A central focus was the integration of digital technologies in dental practice. This included advancements in intra-oral scanners, digital imaging, and virtual simulations for diagnosis and treatment planning. The congress emphasised the importance of interoperable and secure electronic health records to streamline patient care and improve outcomes. The role of fluoride in preventing dental caries was reaffirmed, with discussions on optimising its use in public health initiatives.

Policy statements

The FDI general assembly adopted eight new policy statements, including a significant one on digital dentistry. These statements aim to guide global dental practices and influence health policy at national and international levels. The most notable being:

FDI's general assembly ratified a series of forward-looking policy statements that reflect the evolving landscape of dentistry. These statements are designed to address emerging technologies, public health priorities, and ethical standards in clinical practice.

1. Digital dentistry

This landmark statement outlines the ethical integration of digital tools such as artificial intelligence, CAD/CAM systems, and 3D printing. It emphasises:

- equitable access to digital dental care
- continuous education for practitioners
- data privacy and cybersecurity in digital workflows

2. Electronic Health Records (EHRs)

FDI advocates for standardised, interoperable EHR systems that:

- improve continuity of care
- facilitate global data sharing
- protect patient confidentiality through robust consent protocols

3. Fluoride use in caries prevention

Reaffirming fluoride's role in oral health, this statement supports:



- community-based fluoride programmes
- research into optimal fluoride levels
- public education on fluoride safety and benefits

4. Oral health and systemic disease

This policy highlights the connection between oral health and systemic conditions such as diabetes, cardiovascular disease, and Alzheimer's. It calls for:

- integrated care models
- cross-disciplinary collaboration
- increased funding for oral-systemic research

5. Sustainable dentistry

FDI urges the dental community to adopt environmentally responsible practices, including:

- reducing single-use plastics
- promoting green procurement
- educating patients on sustainable oral hygiene

6. Workforce development

Addressing global disparities in dental care, this statement promotes:

- investment in dental education
- support for rural and underserved communities
- international exchange programmes for skill development

7. Patient-centered care

FDI emphasises the importance of empathy, communication, and shared decision-making in dental treatment planning.

8. Ethics in dental innovation

As new technologies reshape the field, this statement sets ethical guidelines for:

- AI-assisted diagnostics
- genetic screening
- commercial partnerships in research

These policy statements are more than symbolic—they serve as strategic tools for national dental associations, universities, and health ministries worldwide. By aligning clinical practice with global standards, FDI aims to reduce oral health inequalities and improve patient outcomes across borders.

Congress and exhibition

The congress served as a platform for international collaboration, with over 100 CE-accredited academic sessions led by renowned experts. A massive 60,000 square meters exhibition showcased cutting-edge dental technologies and products from more than 700 exhibitors. Co-hosted by the Chinese Stomatological Association (CSA), the event marked a significant milestone in China's dental industry development and its role in global oral health discussion.

The most discussed innovations from the FDI World Dental Congress 2025 in Shanghai were the AI-driven diagnostics. New is that AI tools are now capable of detecting early signs of oral cancer, caries, and periodontal disease with high accuracy. 3D printing for same-day dentistry was another topic. Advances in biocompatible materials and chairside 3D printing allow for same-day crowns, bridges and dentures. Teledentistry is expanding. The integration with mobile apps and wearable tech enables remote consultations, monitoring, and triage. New-generation dental lasers offer more precise, painless procedures for soft- and hard-tissue treatments. The seamless integration of intraoral scanners, CAD/CAM systems, and cloud-based planning plattforms within the digital workflow was one of the big topics.

Sources: FDI, zm Germany



President of FDI 2025 to 2027: Asst. Prof. Nikolai Sharkov, Romania