# Growth of dental 3D printing devices market set to soar



The global dental 3D printing devices market is projected to experience significant growth, with estimates suggesting a rise from US$ 10.50 billion in 2024 to US$ 50.10 billion by 2033. This surge represents a compound annual growth rate (CAGR) of 18.96%, driven by advancements in technology and increasing demand for efficient dental solutions.

Dental 3D printing has fundamentally transformed the landscape of oral healthcare, providing practitioners with the capability to create customised solutions such as crowns, bridges, surgical guides, and implants with remarkable precision and efficiency. This evolution was underscored during a recent update from the International Dental Show (IDS) in Cologne, which revealed the launch of 15 new resin-based printers specifically designed for orthodontic aligners in the first half of 2023. Notably, companies like Formlabs are at the forefront of this revolution with their Form 3B series, allowing clinics to produce highly accurate restorations in less than a day.

In the United States, dental laboratories are increasingly integrating industrial-grade printers into their operations. For example, Glidewell Laboratories has adopted more than 40 such devices to accelerate the manufacturing of crowns. Innovations like Carbon’s M2 printer, which uses Digital Light Synthesis technology, have further reduced production times, paving the way for rapid prototyping of dental prosthetics. The FDA has also played a role in this advancement, approving 24 new biocompatible materials suitable for various dental applications, contributing to improved clinical outcomes.

As dental clinics in Asia adopt specialized 3D printing workflows, over 2,000 facilities have reported offering same-day implant services. Stratasys has distributed over 800 units of its J5 DentaJet printer worldwide, exemplifying the worldwide shift towards embracing digital workflows. In Europe, training initiatives have seen over 60 dental organisations develop programs to educate staff on in-house 3D printing techniques, highlighting the strategic importance of this technology within the sector.

According to market analysis, several key factors have emerged as driving forces behind the adoption of dental 3D printing technologies. There is an increasing consumer preference for customised dental solutions, leading to a wider market embrace of advanced printing technologies. The accelerating development of biocompatible materials has also enabled complex restoration procedures, further reinforcing the role of 3D printing in modern dental practices.

Dental laboratories are adapting to production flexibility, allowing for a more efficient handling of diverse requests—from single-unit crowns to full-scale orthodontic appliances. Tools such as the 3Shape Dental System enable practitioners to generate precise digital models directly ready for 3D printing. This amalgamation of advanced scanning, cloud-based design platforms, and high-performance printers facilitates reduced errors and optimises material use, thus significantly expediting the production process.

Significant advancements in materials used in dental 3D printing have also surfaced. Companies like 3D Systems and Dentsply Sirona are working on new materials that can enhance the performance of dental devices, developing options ranging from flexible dentures to resilient surgical guides. This progress is vital as laboratories and clinics adopt these materials to create durable and aesthetically pleasing dental solutions, improving patient satisfaction.

Collaborative efforts across the industry are

Source: [Noah Wire Services](https://www.noahwire.com)

## References

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