

# **3D Printing Medical Devices Market by Component (3D Printer, 3D Bioprinter, Material, Software, Service), Technology (EBM, DMLS, SLS, SLA, DLP, Polyjet), Application (Surgical Guides, Prosthetics, Implants), End User & Region - Global Forecast to 2028**

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## **Abstracts**

The 3D Printing medical devices market is projected to reach USD 6.9 billion in 2028 from USD 2.7 billion in 2022 with a CAGR of 17.1% during the forecast period.

Traditional manufacturing techniques often involve multiple manufacturing steps, assembly processes, and the use of various components. In contrast, 3D printing can simplify the manufacturing process by producing complex medical devices as a single, consolidated part. This reduction in complexity can streamline supply chains, reduce production time, and minimize the risk of errors or failures associated with assembly processes. The development of new materials specifically designed for 3D printing has expanded the applications of 3D-printed medical devices. Biocompatible materials with suitable mechanical properties, such as bioresorbable polymers and specialized metal alloys, are now available for use in medical applications. These materials offer enhanced biocompatibility, durability, and integration with the human body, making them suitable for a wide range of medical devices.

“The Services & Software segment to hold the largest share of the market in 2022”

In 2022, the Services & Software was projected to account for the highest share. This segment includes services such as tooling and parts production, rapid prototyping, software services, contract manufacturing of 3D-printed products, preclinical testing, system maintenance, creation of a 3D digital model using 3D software programs such as CAD or scanning software, and expert services for training programs. With advancements in printing technology and materials, the 3D printing services sector is

gaining significant traction. As 3D printing facilitates the easy manufacturing of products with complex geometries and offers competitive pricing compared to traditional manufacturing methods, pharma-biotech and medical device companies outsource every aspect of the process, from design to production

“The Custom Prosthetics and Implants is holding the largest share of the market in 2022”

Based on application, the custom prosthetics and Implants segment reported the highest share among all of the 3D Printing medical devices market in 2022. Custom prosthetics and implants are designed and manufactured based on the individual patient's anatomy. This approach allows for a precise fit and better functionality, leading to improved patient comfort and outcomes. With advancements in 3D scanning and imaging technologies, it has become easier to capture accurate patient data, which can then be used to create personalized prosthetics and implants.

“The 3D Printing medical devices market in North America region is projected to witness the highest growth over the forecast period.”

North America reported the largest share of 45.0% of the 3D Printing medical devices market in 2022. This highest share of North America is credited to the increased adoption of using advanced technologies and growing technological developments.

While APAC is expected to witness significant growth in the coming years. The 3D Printing medical devices market in the APAC region is expected to register a CAGR of 18.5% during the forecast period, primarily due to the growing number of hospitals in Asian countries due to modern amenities provided by healthcare and favorable government initiatives. Regulatory bodies in the Asia Pacific region, such as China's National Medical Products Administration and Japan's Pharmaceuticals and Medical Devices Agency, have been actively working on guidelines and regulations for 3D-printed medical devices. The establishment of clear regulatory pathways ensures the safety and effectiveness of these devices, boosting the confidence of manufacturers, healthcare providers, and patients in adopting 3D printing technology.

A breakdown of the primary participants referred to for this report is provided below:

By Company Type: Tier 1–35%, Tier 2–45%, and Tier 3– 20%

By Designation: C-level–35%, Director-level–25and Others–40%

By Region: North America—40%, Asia Pacific—30%, Europe—20%, Latin America—5%, and the Middle East & Africa—5%

The prominent player in 3D Printing medical devices market Stratasys Ltd. (Israel), EnvisionTEC (US), 3D Systems, Inc. (US), EOS (US), Renishaw plc (UK), GE additive(US), Desktop Metal, Inc(US), CELLINK(Sweden), Formlabs(US), , Materialise (Belgium), 3T Additive Manufacturing Ltd. (US), GENERAL ELECTRIC COMPANY (US), Carbon, Inc. (US), Prodways Group (France), SLM Solutions (Germany), Organovo Holdings Inc. (US), FIT AG (Germany), Wacker Chemie AG (Germany), Denstply Sirona(USA) among others.

### Research Coverage

This report studies the in 3D Printing medical devices market based on product & service, technology, application, end user, and region. It also covers the factors affecting market growth, analyzes the various opportunities and challenges in the market, and provides details of the competitive landscape for market leaders. Furthermore, the report analyzes micro markets with respect to their individual growth trends and forecasts the revenue of the market segments with respect to five main regions (and the respective countries in these regions).

### Reasons to Buy the Report

The report will enable established and entrants/smaller firms to gauge the market's pulse, which, in turn, would help them garner a larger market share. Firms purchasing the report could use one or a combination of the below-mentioned strategies for strengthening their market presence.

This report provides insights on the following pointers:

**Market Penetration:** Comprehensive information on the product portfolios offered by the top players in the 3D Printing devices market.

**Drivers and Opportunities:** Detailed information on the advancements in technologies and new opportunities for the upcoming players in 3D printing medical devices market.

**Product Development/Innovation:** Detailed insights on the upcoming trends, R&D activities, and product launches in the 3D Printing devices market.

**Market Development:** Comprehensive information on lucrative emerging regions

**Market Diversification:** Exhaustive information about new products, growing geographies, and recent developments in the 3D Printing devices market.

**Competitive Assessment:** In-depth assessment of market segments, growth strategies, revenue analysis, and products of the leading market players.

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\*Details on Business Overview, Products Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

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