

# Global 3D Printing in Healthcare Market (2018-2023)

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## Abstracts

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### Global 3D printing in healthcare market

The 3D printing in healthcare is expected to reach a value of USD 1.97 Bn by 2023, expanding at a compound annual growth rate (CAGR) of 21.8% during 2018-2023.

3D printing can be defined as the process of building three-dimensional solid objects from digital designs. The creation of 3D printed objects is done using various additive processes. The additive processes involves laying down successive layers of a material until the desired object is created. Each of these layers can be visualized as a thinly-sliced horizontal cross-section of the final object. 3D printing is the exact opposite of subtractive manufacturing, which involves hollowing out/carving out pieces of metal or plastic from a mass. This process opens up opportunities for the production of complex shapes using less material in comparison to traditional manufacturing methods. In the field of medicine, this procedure is used to make several objects like prosthetics and implants, using several materials like metal, plastic, etc.

North America has the most significant share of the 3D printing in healthcare market, while Asia-Pacific is expected to witness the highest CAGR.

The market can be classified into three primary segments based on technology, material, and type.

Based on region, the market is segmented into North America, Europe, Asia-Pacific, Latin America, and the Middle East and Africa.

Based on technology, the market can be segmented into laser beam melting (LBM),

electron beam melting (EBM), photopolymerization, droplet deposition, laminated object manufacturing, and others.

Based on material, the sub-segments are plastic, metal, ceramic and others.

Based on type, the sub-segments include prosthetics, implants, surgical guides, hearing aid and others.

The latest trend indicates extensive research to make 3D printed products commercially available.

#### Key growth factors

The increasing willingness of the people to customise their body parts, reduction in treatment and recovery time, and lower product prices compared to the ones manufactured using traditional methods, are giving an impetus to the 3D printing in healthcare market.

Unavailability of organs for transplants and lack of deceased organ donors or medical purposes results in people choosing the latest remedial measures, which in turn drives the market.

#### Threats and key players

A significant risk to the 3D printing in the healthcare market is the speed at which the tissues are built, since manufacturing these tissues takes a considerable amount of time. The maintenance of the cells for lengthy periods becomes a major challenge for large constructs.

Tissue vascularization is another factor which is acting as a threat to the further development of 3D printing in healthcare. The complexity of vasculatures across organs is proving to be difficult to replicate using 3D bioprinting.

The major players in the market are Stratasys Ltd., 3D Systems, Organovo, Cellink, Renishaw, Formlabs, Prodways, Materialise, EnvisionTEC, and Aspect Biosystems.

What is covered in the report?

1. Overview of the 3D printing in healthcare market.

2. Market drivers and challenges in the 3D printing in healthcare market.
3. Market trends in the 3D printing in healthcare market.
4. Historical, current and forecasted market size data for the 3D printing in healthcare market.
5. Historical, current and forecasted market size data for the technology segment (laser beam melting (LBM), electron beam melting (EBM), photopolymerization, droplet deposition, laminated object manufacturing and others).
6. Historical, current and forecasted market size data for the material segment (plastic, metal, ceramic and others).
7. Historical, current and forecasted market size data for the type segment (prosthetics, implants, surgical guides, hearing aid and others).
8. Historical, current and forecasted regional (North America, Europe, Asia-Pacific, Latin America, the Middle East & Africa) market size data for 3D printing in healthcare market.
9. Analysis of the global 3D printing in healthcare market by value chain.
10. Analysis of the competitive landscape and profiles of major competitors operating in the market.

#### Why buy?

1. Understand the demand for 3D printing in healthcare to determine the viability of the market.
2. Identify the developed and emerging markets for 3D printing in healthcare.
3. Identify the challenges and address them.
4. Develop strategies based on the drivers, trends and highlights for each of the segments.
5. Evaluate the value chain to determine the workflow.
6. Recognize the key competitors of this market and respond accordingly.
7. Knowledge of the initiatives and growth strategies taken by the major companies and decide on the direction of further growth.

#### Customizations available

With the given market data, Netscribes offers customizations according to specific needs.

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