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*from NOW to NEXT*



## **Restorative Dentistry Market**

Techsci Research Analysts in Conversation with: Paulo Varela  
(DDS, Phd, MSc, PgDip)

## INTRODUCTION

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TechSci Research is a global market research and consulting company with offices in the United States, United Kingdom, and India. TechSci Research provides market research reports in verticals such as Healthcare, Chemicals, Agriculture, Consumer Goods, ICT, Infrastructure, Automotive, Oil & Gas, Water & Wastewater, Power, among others. The company uses innovative business models that focus on improving productivity, while ensuring creation of high-quality reports. The proprietary forecasting models use various analyses of both industry-specific and macroeconomic variables on a state-by-state basis to produce a unique ‘bottom-up’ model of a country, regional and global industry prospects. Combined with the detailed analysis of company activity and industry trends, the result is a uniquely rich evaluation of the opportunities available in the market.

We also provide market intelligence and consulting on emerging technologies and on industries that are in the early stages of development and are expected to revolutionize the market in the coming years.

For each topic that we cover, TechSci Research Analysts interact with several key opinion leaders and industry experts to carefully understand, analyze, and predict a particular market. Our “Key Opinion Leaders Insight” series is one such initiative wherein we are bringing key stakeholders operating in an industry under one platform together wherein knowledge, insights and views can be shared with each other. Under this initiative we aim at bringing prominent aca-





demographic medical research and healthcare market opportunities under one piece of writing. And, insights mentioned in the interview section are the sole opinion of the expert.

This document features restorative dentistry, which is currently high in demand across the dental industry. The growing expenditure on oral health and hygiene along with increasing popularity of cosmetic dentistry is creating lucrative opportunities for the growth of restorative dentistry market. Furthermore, growing popularity of dental tourism along with coverage of dental procedures under health insurance in various countries is further expected to increase the demand for restorative dentistry procedures in the coming years.

Besides, the growing prevalence of diseases such as plaque and periodontal diseases which contribute to tooth loss has significantly increased the demand for restoration procedures, thereby supporting the growth of global restorative dentistry market. Additionally, growing focus on aesthetics and increasing awareness related to going for regular dental checkups is expected to spur the market growth in the coming years.

The increasing research & development activities conducted by various academic & research organizations and companies operating in the dental space. This in turn is not only attracting investments but also leading to new product launches, mergers & acquisitions, collaborations, among others.

Some of the prominent players operating in the global restorative dentistry market include Institut Straumann AG, Envista Holdings Corporation (Danaher Corporation), DENTSPLY Sirona, Inc., Zimmer Biomet Holdings, Inc., 3M Company, Coltene Holding AG, Henry Schein, Inc., Ultra-dent Products, Inc., Ivoclar Vivadent AG, and Zhermack SpA, among others.





# In Conversation with Paulo Varela

DDS, Phd, MSc, PgDip

**ANALYST-** How is your work related to restorative dentistry?

**EXPERT-** My work is about implantology. Usually, what I do is not direct restorative dentistry of the natural teeth. Rather, I place implants and make the rehabilitation of that implant. I don't work on natural teeth. I work on edentulous patients making oral rehabilitations on the patients. I also did research to evaluate the action of low power lasers penetrating collagen membranes, the goal was to study light penetration in this type of materials.

**ANALYST-** What, according to you, are the major barriers to the adoption of restorative procedures or major challenges that are hindering the growth of restorative dentistry industry?

**EXPERT-** The economic issue is the major obstruction for restorative dentistry. Mackenback et al. (2008) in a comparative study, concluded that Portugal, compared to other European countries, has high levels of inequality in terms of education, influencing the access to oral care. Compared to other EU countries, Portugal has high rates of dental caries, periodontic problems and high percentages of edentulous people, without the presence of natural teeth in oral cavity. In Portugal exists the SNS, (Nacional Health Service), that take care of health in general, but not oral health directly. The Portuguese Government gives a voucher of 35 euros, (max. number of 11 vouchers), for specific people, like, children and young people up to 18 years of age who attend public schools. Pregnant women followed by SNS, elderly beneficiaries of the Solidarity Supplement, patients with AIDS infection and patients with high risk of oral cancer. Convened dentists must make about 5 treatments in each patient. Services are generally of particular nature, with limited initiatives carried out by government to encourage population in oral hygiene care. In France, under the Assurance Maladie, the government pays for the regular dentistry treatments, about 70% of their price conditions. In Portugal, we can also have private insurances. The private insurance pays part or promote a discount over the treatment. We also have some sub health systems where patients pay a small part of the treatment. The regular population must pay their dental treatments. Another hindrance for restorative dentistry is that the number of dentists are quite high. In Portugal, it's nearly three times higher than the total dentists that are required. Young dentists ending their courses, have high theoretical knowledge, but a severe lack of clinical practice. How we know clinical practice as it is fundamental in dentistry. If clinical practice fails, patient treatments may be at risk.



**ANALYST-** Is there any development or changes happening in the restorative dentistry industry that you feel is worth sharing or are you foreseeing any major developments happening in the industry over the years?

**EXPERT-** The trend of restorative dentistry is the digitization of dentistry especially, orthodontics implantology and prosthesis. Moreover, more and more people have now started visiting their dentists because of aesthetic reasons, the desire to have white and straight teeth is advertised everywhere. There is a lot of progress in digital dentistry. But all of digitalization raise the total price of the procedures.

**ANALYST-** If we talk about the restorative dentistry market, was there any major change due to the COVID-19 pandemic crisis?

**EXPERT-** During COVID, in Portugal, we were

obliged to stop completely. 2020 was very difficult, 2021 was better. This year, the problem is not COVID but the economy. At present time, COVID is not a problem but the Russia-Ukraine war. The war has led to major financial problems because the prices of food, electricity and gasoline have seen a peak. This has made people focusing on what is better for them and food and housing are the principal reasons.

**ANALYST-** Is the current Russia-Ukraine War crisis having any kind of impact on the restorative dentistry industry across the European countries?

**EXPERT-** According to my knowledge and what some experts say, the price for titanium has increased significantly. It is possible that in median term the price for professionals will increase. Titanium price now, is higher than the price in December 2020. At present, the implants are being manufactured with

the titanium bought last year. When there will be a need for more titanium, I'm sure it will be much higher as Russia is one of the biggest exporters of titanium. We are buying large portion of titanium from Russia. Some European brands of implants may buy titanium in the market and maybe some of this titanium comes from Russia. Another issue is the increasing price of transportation, consequently, the prices will be higher no matter where the titanium is from.

**ANALYST-** According to you, what do the people of Portugal or overall Europe prefer to go to dental hospitals or dental clinics (the standalone ones)?

**EXPERT-** Usually, people go to clinics. But in Portugal, there is a huge number of private hospitals offering dental practices. Currently, people are going to big structures as they believe they are better quality treatment, and private hospitals have all the health sub-systems and insurances. This is a big problem for small private clinics, when people see a big hospital, they feel that they can have better treatment comparing to a small clinic.

**ANALYST-** According to you, what are the factors that have significantly increased the demand for restorative dentistry?

**EXPERT-** People realized that oral health is very important for their wellbeing, another

factor is the aesthetic, beautiful teeth represent beautiful and healthy people men and women, globally.

**ANALYST-** Could you brief us about the impact on medical tourism?

**EXPERT-** Medical tourism has increased, especially in Turkey. Turkey offers the treatment at very cheap rates. Turkey is making a lot of procedures, such as hair procedures, skin procedures (Botox) and even for breast implants. The only challenge is the quality of treatments and professionals.

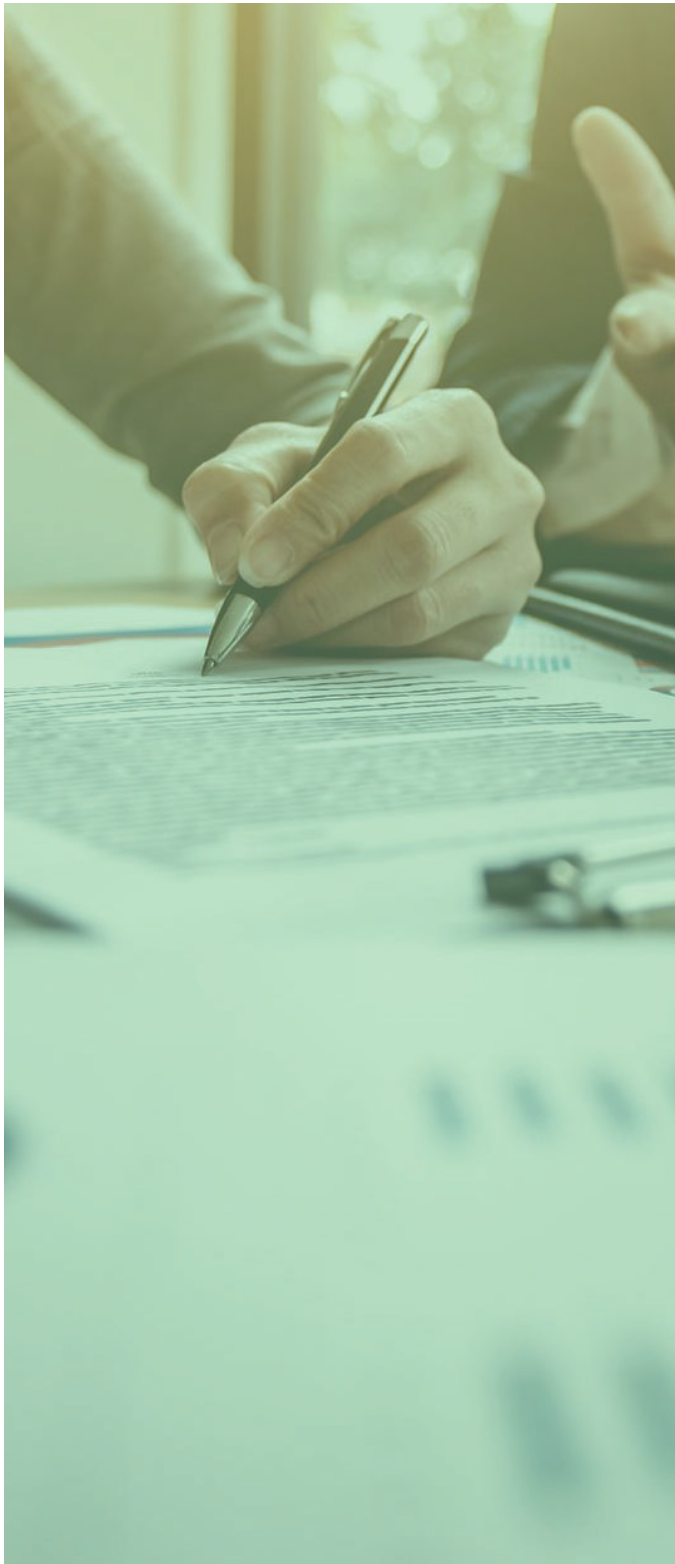
**ANALYST-** When we talk about dental restorations, generally on which type of teeth are these procedures performed and why? (Anterior (Incisors & Canines) or Posterior (Molars & Pre-molars)).

**EXPERT-** Although posterior teeth require more restorations, but people want dental restorations to be performed on anterior teeth. I have patients with no molars, but they want restorations of anterior ones.

**ANALYST-** In terms of the direct and indirect dental restoration procedures, which are being more commonly performed and why? (If you can quantify in terms of percentages).







**EXPERT-** The indirect ones are being more performed as it is cheaper, easier, and more comfortable. We just need to make a scan in patient's mouth; the machine makes the piece and teeth is placed in the mouth of patient. It's very convenient and the errors are not so big. Indirect simple restorations may just contribute to about 10%-20% in general dentistry. Talking about the global scenario, direct ones are more. For instance, in France, the government pays for the direct simple restorations and not for the indirect ones. Only crowns they pay. The price of lab onlays and inlays are very high compared with direct restorations made directly in the mouth of the patients.

**ANALYST-** There are different components used in a dental restoration procedure like implants restorative materials, prosthetics, etc. Which according to you forms the most integral part?

**EXPERT-** Implants, Veneers and orthodontics are in very high demand right now.

**ANALYST-** Which country across the Europe witnesses the highest number of dental restoration procedures performed?

**EXPERT-** As per my understanding, restorative dentistry is a basic procedure, and more population will call for more restorations. Furthermore, the growing geriatric population of the country also effects the demand for restorative dentistry activities.

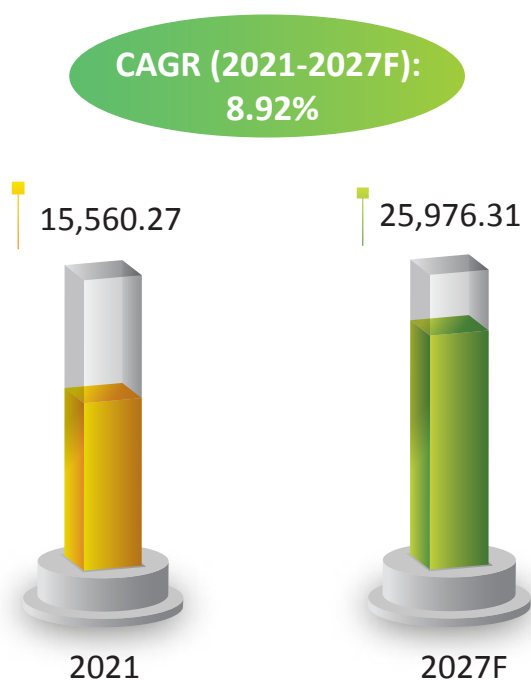
**ANALYST-** Who are the major companies operating in the global restorative dentistry market? Any, European company that you know which is making key developments.

**EXPERT-** We have Kulzer from Germany, VOCO GmbH, and 3M Co. In Europe, Germany and EUA are the major investor in dentistry, outside Europe we can consider that Brazil invests a lot in all kind of material related to all areas of dentistry.

## Techsci Research on Restorative Dentistry Market

The growing awareness related to maintaining oral health along with increasing expenditure on oral care is expected to drive the growth of global restorative dentistry market. The unhealthy eating habits (excessive consumption of sugars & food items containing acids) especially among the youth has led to an increase in tooth decay, thereby increasing the demand for procedures to restore the tooth, thereby fueling the market growth. Besides, the flourishing cosmetic dentistry industry is further expected to create lucrative opportunities for the growth of global restorative dentistry market in the coming years.

### Global Restorative Dentistry Market Size, By Value (USD Million), 2017 & 2027F



The figure above illustrates the global restorative dentistry market size for the year 2021 and 2027. The global restorative dentistry market in 2021 stood at USD15,560.27 million and is expected to grow at a CAGR of 8.92% and reach USD25,976.31 million in 2027.

The growing geriatric population worldwide which is susceptible to different kinds of tooth problems is expected to increase the demand for dental restoration procedures, thereby supporting the growth of global restorative dentistry market. Additionally, increasing expenditure by different governments across the globe to create awareness related to oral health among the population and improvising the dental health infrastructure is expected to boost the market growth during the forecast period.

The technological advancements and new product launches in the field of dentistry is expected to create lucrative opportunities for the growth of restorative dentistry market in the next few years. The widespread adoption of Computer-aided design (CAD)/computer-aided manufacturing (CAM) in dentistry on account of the benefits offered by these techniques such as increased precision while performing different restoration procedures, use of these techniques in developing crowns, bridges, dentures, among others is expected to increase the demand for these technologies in restoration





procedures. The increasing use of CAD/CAM has also reduced the need to wear temporary bridges/crowns during dental restoration treatments, enabled less time-consuming treatment procedures, and reduced the number of doctor visits.

There has been a rise in research and development of novel products in the restorative dentistry field. The approval of different products used in dental restoration procedures by the US-FDA and other regulatory agencies across the globe has led to major breakthroughs in the dental restorations over the last few years. Also, the industry has witnessed a lot of mergers & acquisitions, expansions and collaborations in the last few years.

To gain a holistic view of the market, data from different segments of the restorative dentistry market has been analyzed minutely. These segments include restoration types such as direct and indirect; type of teeth on which restorations are done, anterior or posterior; different products used in dental restoration procedures such as restorative materials, prosthetics, implants, and restorative equipment and regions including North America (United States, Canada, Mexico), Europe (Germany, Italy, France, Poland, Spain, United Kingdom), Asia Pacific (China, India, Japan, South Korea, Thailand, Australia, Malaysia, Vietnam), South America (Brazil, Argentina, Colombia), and Middle East & Africa (Turkey, Egypt, Saudi Arabia, UAE, South Africa).



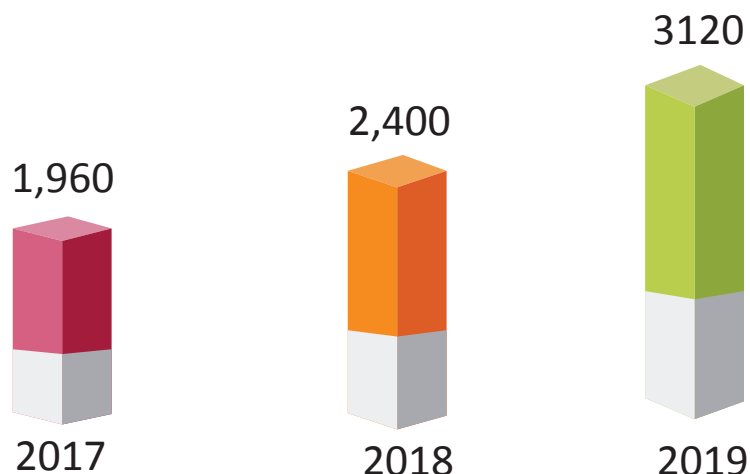
## TECHSCI RESEARCH ANALYSIS ON GLOBAL RESTORATIVE DENTISTRY MARKET

### Among the different types of products used in dental restoration procedures, which is dominating in the Global Restorative Dentistry Market?

As of 2021, restorative materials segment dominated the global restorative dentistry market with an overall market share of 35.11%. This can be ascribed to the growing importance of aesthetics among the population especially the women population which has significantly led to an increase in the number of cosmetic dentistry procedures performed worldwide. Besides, widespread adoption and use of biomaterials in the field of dentistry has significant use of these materials in fabricating dental restorations is further expected to support the segmental growth.

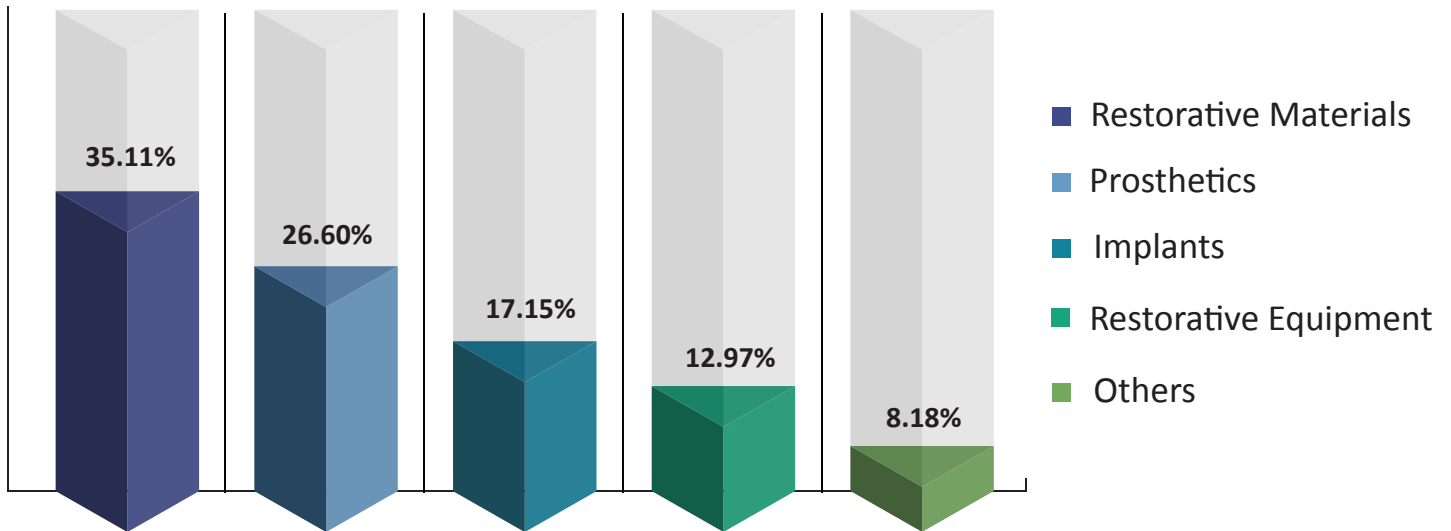
Similarly, the demand for prosthetics and implants is expected to increase in the coming years on account of increasing dental problems worldwide. The number of dental implants procedures have significantly increased over the years across different parts of the globe despite their high cost. This can be attributed to the ability of implants to restore cosmetic appearance and ability to chew. Additionally, dental implants help in keeping the jawbone from shrinking due to bone loss. Dental implants help in preserving the health of surrounding bones and gums. All these factors have significantly increased the demand for dental implants over the years.

### Number of Dental Implants in China, 2017,2018,2019 (in Thousands)



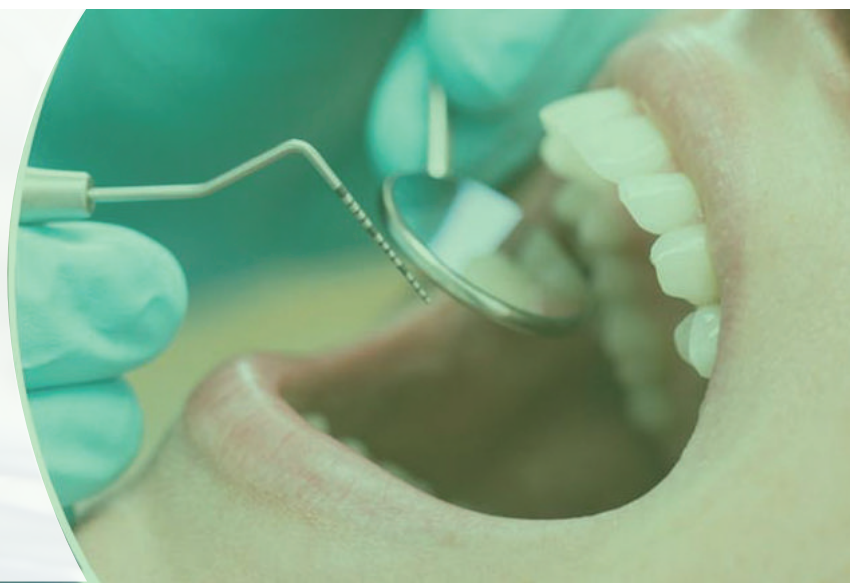
Besides, various companies operating in the market are launching new products under these categories thereby supporting the segmental growth in the coming years. In May 2020, Straumann Group announced a new zygomatic implant solution for patients with severe jawbone loss in collaboration with Southern Implants. The new solution combines proven implant design features with the advantages of Straumann's BLX and BLT implant prosthetic range.

### Global Restorative Dentistry Market Share, By Product, By Value, 2021



### Which restoration type dominates the Global Restorative Dentistry Market?

In terms of the two restoration types, direct restorations and indirect restorations, the direct restorations type dominated the market in 2021 with an overall market share of 73.33%. This can be ascribed to the fact that direct restorations are cost effective. Additionally, a direct restoration is prepared for immediate placement and does not require external fabrication. Besides, a direct dental restoration can be performed in a shorter span of time as compared to the indirect ones. However, the share of indirect restorations will increase in the coming years since they are easier to perform and are more comfortable.

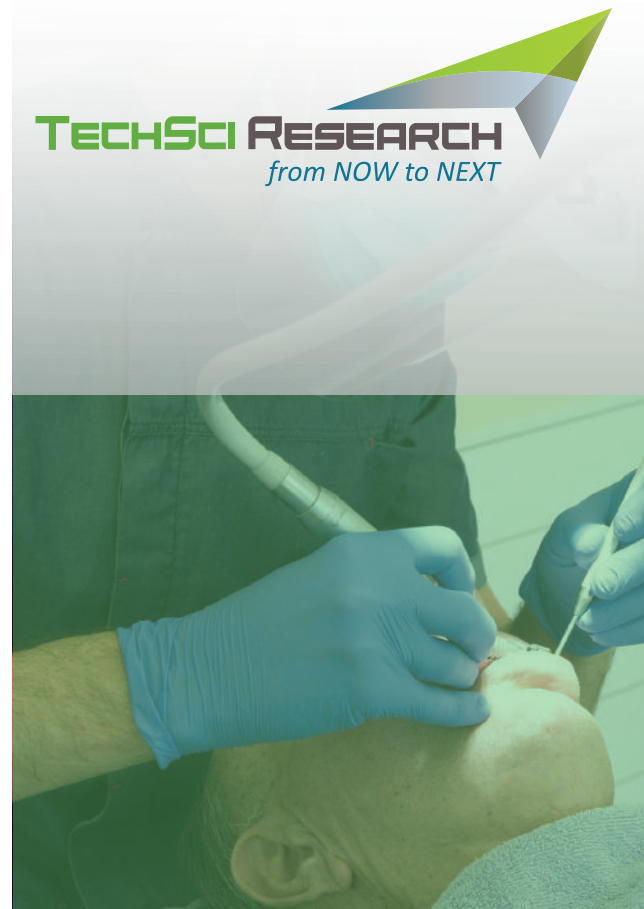
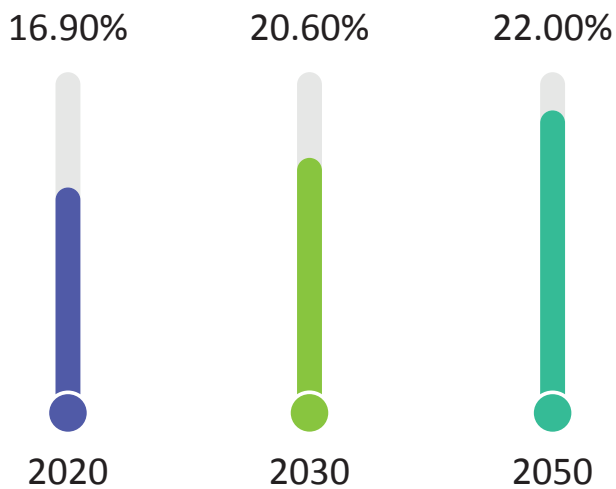




## Which restoration type dominates the Global Restorative Dentistry Market?

In 2021, United States dominated the Global Restorative Dentistry Market among all the countries across the globe and stood at USD4141.99 million. This can be ascribed to the growing geriatric population in the country susceptible to various dental problems.

## Share of Geriatric Population in the United States, 2020, 2030 & 2050



Additionally, growing awareness among the population pertaining to oral preventive and restorative treatments is further expected to support the market growth in the region. Furthermore, early adoption of advanced techniques and products in the country further supports the market growth. Besides, the United States is home to several dental manufacturers that are focused on developing novel products for use in dental restoration procedures along with improvising the efficacy and overall outcome of the dental restoration procedures. This is another factor that is expected to drive the growth of the market value.

## Who are the key players operating in the Global Restorative Dentistry Market?

The global restorative dentistry market is highly fragmented with a lot of established players and various emerging regional players. Some of the key players operating in the global restorative dentistry market include Henry Schein, Inc., DENTSPLY Sirona, Inc., Institut Straumann AG, Ivoclar Vivadent AG, Zimmer Biomet Holdings, Inc., among others. Others prominent players operating in the industry include Envista Holdings Corporation, 3M Company, etc.

The different companies operating in the market are following strategies such as mergers & acquisitions, partnerships, collaboration, and new product launches in order to stay competitive and have an edge over other players operating in the industry. The industry has been witnessing majorly product launches. Product launches not only help the companies in improvising and enhancing their product portfolio but also helps them in improving their market positioning.



## RECENT DEVELOPMENTS IN THE FIELD OF RESTORATIVE DENTISTRY

### Key Industry Developments

In March 2022, Dentsply Sirona, Inc. entered into a partnership with Platform for Better Oral Health in Europe to improve oral health and the prevention of oral diseases - as well as address oral health inequalities and challenges.

In March 2022, Septodont Holdings, launched a bioceramic root canal sealer, BioRoot Flow. This sealer will help in creating an alkaline environment in the mouth in order to restrict bacterial growth.

In February 2022, Google LLC (Alphabet, Inc.) and Dentsply Sirona, Inc. entered into a collaboration. This collaboration will help dentists and dental labs alike to unlock the full benefits of digital dentistry.

In December 2021, Envista Holdings Corporation acquired Carestream Dental LLC in a deal of USD600 million. This acquisition is in line with Envista's long-term strategy to focus on the fastest-growing dental market segments and create differentiated solutions via the digitalization of dental workflows.

In December 2021, Dentsply Sirona, Inc. entered into a partnership with 3Shape A/S. This partnership provides seamless and secure integration of Dentsply Sirona's Connect Case Center with 3Shape's Dental System software. Both companies offer new workflows and technologies to dental professionals to boost digital portfolios.

In December 2021, Envista Holdings Corporation received FDA 510(k) Clearance for its Nobel Biocare N1 implant system.

In June 2021, Switzerland based company COLTENE Group launched endodontic product known as MicroMega One RECI. This new product will help in mechanical root canal preparation with reciprocating and continuously rotating systems.

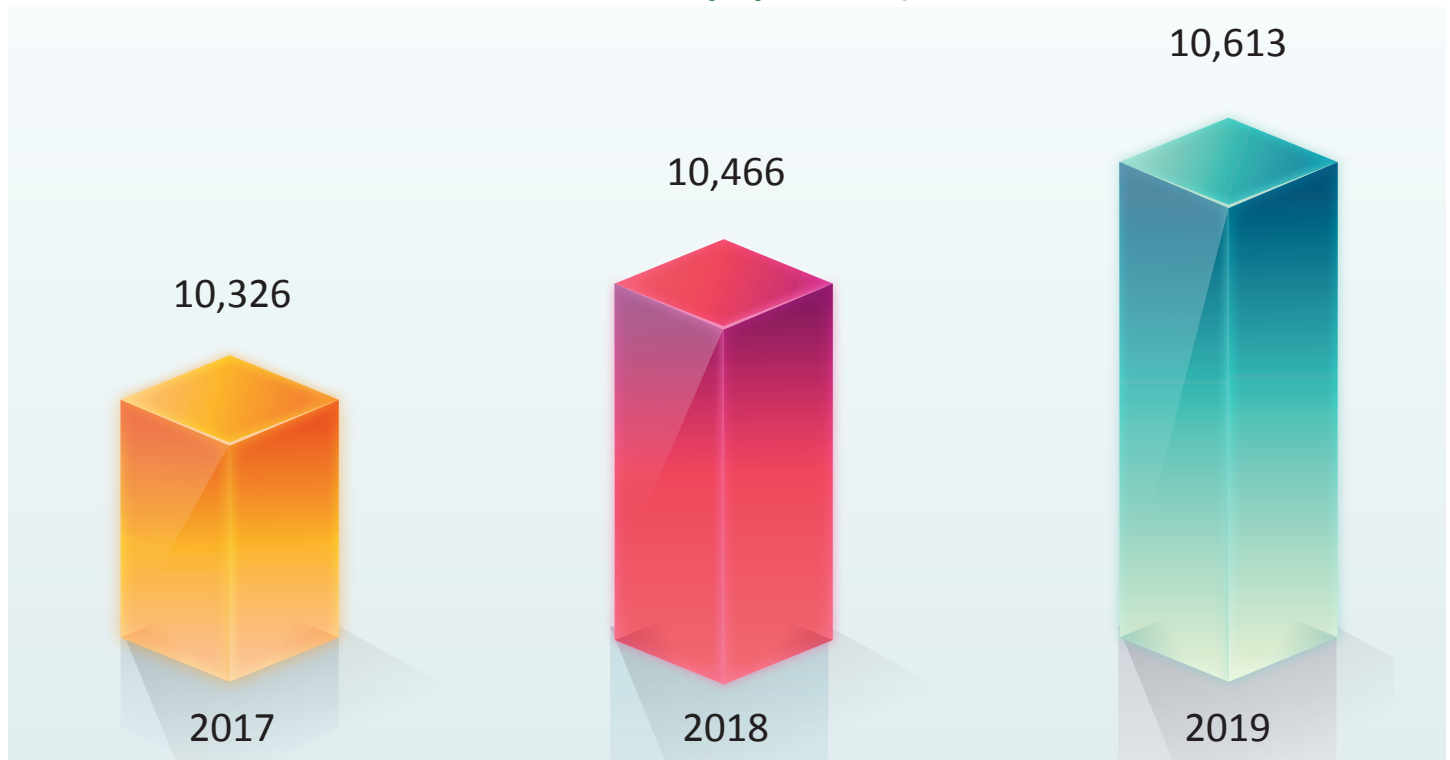
In March 2021, Institut Straumann AG expanded in China by building its first manufacturing, education, and innovation center.

In February 2021, GC Corporation launched G-2 Bond Universal Adhesive. This two-bottle universal bonding system which features exceptional properties in strength and versatility.

## What are the key drivers accelerating the growth of Global Restorative Dentistry Market?

The major factors driving the growth of Global Restorative Dentistry Market include growing prevalence of dental problems especially caries, tooth decay and periodontal diseases. According to the FDI World Dental Federation, in 2017, the oral diseases impacted approximately 3.9 billion people globally, with untreated tooth decay impacting more than half of the world's population, making it the most prevalent of all 291 conditions included in the Global Burden of Disease Study. Thus, the growing prevalence of dental disorders is anticipated to boost the growth of the market.

### Prevalence rate of Edentulism and Severe Tooth Loss in Italy, 2017-2019 (per 100,000 population)



Additionally, the growing awareness related to oral health and hygiene has significantly increased the expenditure on dental services and an increase in number of people going for regular dental checkups. This in turn has positively impacted the growth of restorative dentistry market by increasing the number of people going for dental restoration procedures. For instance, the household spending on dental services in the United Kingdom increased to USD2454.11 million in 2021 from USD1925.60 million in 2020.





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Founded in 2008, we are an independent Global Market Research and India Entry Management Consulting company that helps global companies to Enter, Expand and Succeed in India. With the help of our strategic solutions and business implementation assistance, we have led many brands to enter and establish in India.

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TechSci Healthcare vertical offers market research & consulting services in the healthcare industry with a major focus on pharmaceuticals, medical devices, consumer healthcare, animal healthcare, biotechnology, and healthcare IT domains. TechSci Research also focuses on providing market intelligence on emerging technologies and niche industries that have the potential to cause a high level of disruption in the market in the next few years. We excel in conducting market viability analysis for technologies that are still in the nascent stages of their lifecycle.

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Cosmetic Dentistry Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2017-2027 Segmented By Product (Dental Systems and Equipment, Dental Implants, Dental Crowns & Bridges, Dental Veneer, Orthodontic Braces, Others), By Dental Systems and Equipment (Instrument Delivery systems, Dental Chairs, Dental Handpieces, Dental Lasers, Dental Radiology Equipment, Others), By End User (Dental Hospital & Clinics, Dental Laboratories, Others), By Region.

Global Dental Implants Market By Material (Titanium v/s Zirconium) By Design (Tapered v/s Parallel-Walled) By Type (Root-Form v/s Plate-Form) By Connection Type (Internal, External, One-Piece) By Procedure (One-Stage & Two Stage Surgeries v/s Immediate Loading) By Application (Single Tooth Replacement v/s Multi-Tooth Bridge Securement) By End User (Dental Clinics, Hospitals, Others) By Region, Competition Forecast & Opportunities, 2027.

Dental Bone Graft Substitute Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2017-2027 Segmented By Type (Allograft, Xenograft, Autograft, Synthetic Bone Graft, Others), By Material (Human Cell Source, Collagen, Animal Source, Others), By Mechanism (Osteoconduction, Osteoinduction, Osteopromotion, Osteogenesis), By Product (Bio OSS, Grafton, Osteograf), By Application (Socket Preservation, Ridge Augmentation, Periodontal Defect Regeneration, Implant Bone Regeneration, Sinus Lift), By End User (Hospitals & Clinics, Dental Laboratories, Others), By Region.

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