

Global Coronary Artery Bypass Graft Devices Market Size study, by Method (On-pump, Off-pump, Minimally Invasive Direct), by Surgical Procedure, by End-use, and Regional Forecasts 2022-2032

<https://marketpublishers.com/r/GB6ADCECFBB7EN.html>

Date: May 2025

Pages: 285

Price: US\$ 3,218.00 (Single User License)

ID: GB6ADCECFBB7EN

Abstracts

Global Coronary Artery Bypass Graft Devices Market is valued approximately at USD 12.99 billion in 2023 and is anticipated to grow with a robust CAGR of more than 9.40% over the forecast period 2024–2032. As cardiovascular diseases persist as the leading cause of mortality worldwide, the demand for innovative surgical interventions continues to gain traction. Coronary artery bypass graft (CABG) devices, which facilitate blood flow around blocked arteries, have emerged as lifesaving tools in modern cardiac care. These devices, ranging from traditional graft conduits to cutting-edge minimally invasive systems, are redefining the surgical landscape. Advancements in biocompatible materials, coupled with the increasing adoption of minimally invasive techniques, have fueled their integration into both tertiary care centers and ambulatory surgical units. The growing burden of lifestyle-related diseases, coupled with an aging population, is pushing the healthcare ecosystem toward safer, faster, and more cost-effective revascularization solutions.

The market's dynamic ascent is driven by a confluence of technological enhancements and clinical necessity. Innovations in off-pump techniques have reduced complications such as stroke and bleeding, while minimally invasive direct coronary artery bypass (MIDCAB) approaches are setting new standards in postoperative recovery and patient satisfaction. Furthermore, a surge in global cardiac screening initiatives has improved early diagnosis rates, subsequently increasing the pool of patients eligible for bypass procedures. Simultaneously, health systems are aligning with value-based care models, prioritizing long-term outcomes, and cost-efficiency. These macro trends are encouraging hospitals to adopt advanced CABG devices that shorten hospital stays and

minimize readmission risks.

However, despite the apparent growth opportunities, several bottlenecks challenge the market's unfettered expansion. The high cost of device development, coupled with stringent regulatory pathways, often delays product commercialization—especially in emerging markets. Skilled surgical expertise required for newer techniques also presents a barrier in low-resource settings. Nonetheless, key players are investing significantly in R&D to engineer user-friendly, AI-integrated, and minimally invasive systems that democratize access to coronary revascularization procedures. Collaborations between device manufacturers and healthcare providers are fostering clinical training programs and scalable business models that promise to bridge the accessibility gap.

In response to evolving clinical demands, the CABG devices landscape is also witnessing a shift from one-size-fits-all models toward precision-oriented solutions. Manufacturers are tailoring devices based on patient-specific anatomy, surgical preference, and comorbidities. AI and robotics are being incorporated into planning and execution phases to enhance surgical accuracy and procedural predictability. Additionally, the move toward biodegradable graft materials and tissue-engineered vascular conduits signifies a futuristic approach that aims not just at restoring circulation but regenerating vascular function.

From a regional standpoint, North America dominates the global market, underpinned by high procedural volumes, well-established hospital networks, and early adoption of emerging technologies. Europe follows closely, bolstered by favorable reimbursement policies and a strong clinical research infrastructure. Meanwhile, Asia Pacific is poised for exponential growth due to rising healthcare expenditures, increasing patient awareness, and a growing geriatric population susceptible to cardiac ailments. Latin America and the Middle East & Africa, though still in the developmental phase, are witnessing gradual improvements driven by public-private partnerships and international health collaborations.

Major market player included in this report are:

Terumo Corporation

Boston Scientific Corporation

Getinge AB

Medtronic plc

Edwards Lifesciences Corporation

Genesee BioMedical Inc.

Sorin Group (LivaNova PLC)

Novadaq Technologies Inc.

MAQUET Holding B.V. & Co. KG

SyntheMed, Inc.

Vital Therapies, Inc.

Hancock Jaffe Laboratories Inc.

Dextera Surgical Inc.

Baxter International Inc.

BioStable Science & Engineering Inc.

The detailed segments and sub-segment of the market are explained below:

By Method

On-pump

Off-pump

Minimally Invasive Direct

By Surgical Procedure

Single Vascular Graft

Double Vascular Graft

Triple Vascular Graft

Quadruple Vascular Graft

By End-use

Hospitals

Ambulatory Surgical Centers

Cardiac Specialty Clinics

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Rest of Latin America

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

Companies Mentioned

Terumo Corporation

Boston Scientific Corporation

Getinge AB

Medtronic plc

Edwards Lifesciences Corporation

Genesee BioMedical Inc.

Sorin Group (LivaNova PLC)

Novadaq Technologies Inc.

MAQUET Holding B.V. & Co. KG

SyntheMed, Inc.

Vital Therapies, Inc.

Hancock Jaffe Laboratories Inc.

Dextera Surgical Inc.

Baxter International Inc.

BioStable Science & Engineering Inc.

Contents

CHAPTER 1. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET EXECUTIVE SUMMARY

- 1.1. Global Market Size & Forecast (2022–2032)
- 1.2. Regional Summary
- 1.3. Segmental Summary
 - 1.3.1. By Method
 - 1.3.2. By Surgical Procedure
 - 1.3.3. By End-use
- 1.4. Key Trends
- 1.5. Recession Impact
- 1.6. Analyst Recommendation & Conclusion

CHAPTER 2. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET DEFINITION AND RESEARCH ASSUMPTIONS

- 2.1. Research Objective
- 2.2. Market Definition
- 2.3. Research Assumptions
 - 2.3.1. Inclusion & Exclusion
 - 2.3.2. Limitations
 - 2.3.3. Supply-Side Analysis
 - 2.3.3.1. Infrastructure & Capacity
 - 2.3.3.2. Regulatory Environment
 - 2.3.3.3. Market Competition
 - 2.3.3.4. Economic Viability (Provider's Perspective)
 - 2.3.4. Demand-Side Analysis
 - 2.3.4.1. Cardiovascular Disease Burden
 - 2.3.4.2. Surgical Adoption Trends
- 2.4. Estimation Methodology
- 2.5. Years Considered for the Study
- 2.6. Currency Conversion Rates

CHAPTER 3. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET DYNAMICS

- 3.1. Market Drivers

- 3.1.1. Rising Prevalence of Coronary Artery Disease
- 3.1.2. Technological Advances in Minimally Invasive Techniques
- 3.1.3. Shift to Value-Based and Patient-Centric Care Models
- 3.2. Market Challenges
 - 3.2.1. High R&D and Regulatory Approval Costs
 - 3.2.2. Shortage of Skilled Cardiothoracic Surgeons
 - 3.2.3. Reimbursement and Cost-Containment Pressures
- 3.3. Market Opportunities
 - 3.3.1. Development of Precision and Patient-Specific Grafts
 - 3.3.2. Integration of AI and Robotics in Surgical Planning
 - 3.3.3. Expansion into Emerging and Underserved Markets

CHAPTER 4. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET INDUSTRY ANALYSIS

- 4.1. Porter's Five Forces
 - 4.1.1. Bargaining Power of Suppliers
 - 4.1.2. Bargaining Power of Buyers
 - 4.1.3. Threat of New Entrants
 - 4.1.4. Threat of Substitutes
 - 4.1.5. Competitive Rivalry
- 4.2. PESTEL Analysis
 - 4.2.1. Political
 - 4.2.2. Economic
 - 4.2.3. Social
 - 4.2.4. Technological
 - 4.2.5. Environmental
 - 4.2.6. Legal
- 4.3. Top Investment Opportunities
- 4.4. Winning Market Strategies
- 4.5. Disruptive Trends
- 4.6. Industry Expert Perspectives
- 4.7. Analyst Recommendation & Conclusion

CHAPTER 5. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET SIZE & FORECASTS BY METHOD (2022–2032)

- 5.1. Segment Dashboard
- 5.2. On-pump Devices: Revenue Trend Analysis, 2022 & 2032

5.3. Off-pump Devices: Revenue Trend Analysis, 2022 & 2032

5.4. Minimally Invasive Direct Devices: Revenue Trend Analysis, 2022 & 2032

CHAPTER 6. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET SIZE & FORECASTS BY SURGICAL PROCEDURE (2022–2032)

6.1. Segment Dashboard

6.2. Single Vascular Graft, 2022 & 2032

6.3. Double Vascular Graft, 2022 & 2032

6.4. Triple Vascular Graft, 2022 & 2032

6.5. Quadruple Vascular Graft, 2022 & 2032

CHAPTER 7. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET SIZE & FORECASTS BY END-USE (2022–2032)

7.1. Segment Dashboard

7.2. Hospitals, 2022 & 2032

7.3. Ambulatory Surgical Centers, 2022 & 2032

7.4. Cardiac Specialty Clinics, 2022 & 2032

CHAPTER 8. GLOBAL CORONARY ARTERY BYPASS GRAFT DEVICES MARKET SIZE & FORECASTS BY REGION (2022–2032)

8.1. North America Market

8.1.1. U.S. Market

8.1.2. Canada Market

8.2. Europe Market

8.2.1. UK Market

8.2.2. Germany Market

8.2.3. France Market

8.2.4. Spain Market

8.2.5. Italy Market

8.2.6. Rest of Europe Market

8.3. Asia Pacific Market

8.3.1. China Market

8.3.2. India Market

8.3.3. Japan Market

8.3.4. Australia Market

8.3.5. South Korea Market

- 8.3.6. Rest of Asia Pacific Market
- 8.4. Latin America Market
 - 8.4.1. Brazil Market
 - 8.4.2. Mexico Market
 - 8.4.3. Rest of Latin America Market
- 8.5. Middle East & Africa Market
 - 8.5.1. Saudi Arabia Market
 - 8.5.2. South Africa Market
 - 8.5.3. Rest of Middle East & Africa Market

CHAPTER 9. COMPETITIVE INTELLIGENCE

- 9.1. Key Company SWOT Analysis
 - 9.1.1. Terumo Corporation
 - 9.1.2. Boston Scientific Corporation
 - 9.1.3. Getinge AB
- 9.2. Top Market Strategies
- 9.3. Company Profiles
 - 9.3.1. Terumo Corporation
 - 9.3.1.1. Key Information
 - 9.3.1.2. Overview
 - 9.3.1.3. Financial (Subject to Data Availability)
 - 9.3.1.4. Product Summary
 - 9.3.1.5. Market Strategies
 - 9.3.2. Boston Scientific Corporation
 - 9.3.3. Getinge AB
 - 9.3.4. Medtronic plc
 - 9.3.5. Edwards Lifesciences Corporation
 - 9.3.6. Genesee BioMedical Inc.
 - 9.3.7. Sorin Group (LivaNova PLC)
 - 9.3.8. Novadaq Technologies Inc.
 - 9.3.9. MAQUET Holding B.V. & Co. KG
 - 9.3.10. SyntheMed, Inc.
 - 9.3.11. Vital Therapies, Inc.
 - 9.3.12. Hancock Jaffe Laboratories Inc.
 - 9.3.13. Dexter Surgical Inc.
 - 9.3.14. Baxter International Inc.
 - 9.3.15. BioStable Science & Engineering Inc.

CHAPTER 10. RESEARCH PROCESS

- 10.1. Data Mining
- 10.2. Analysis
- 10.3. Market Estimation
- 10.4. Validation
- 10.5. Publishing
- 10.6. Research Attributes

List Of Tables

LIST OF TABLES

TABLE 1. Global Coronary Artery Bypass Graft Devices Market, Report Scope
TABLE 2. Global Market Estimates & Forecasts by Region (2022–2032)
TABLE 3. Global Market Estimates & Forecasts by Method (2022–2032)
TABLE 4. Global Market Estimates & Forecasts by Surgical Procedure (2022–2032)
TABLE 5. Global Market Estimates & Forecasts by End-use (2022–2032)
TABLE 6. North America Market Estimates & Forecasts, 2022–2032
TABLE 7. U.S. Market Estimates & Forecasts by Segment, 2022–2032
TABLE 8. Canada Market Estimates & Forecasts by Segment, 2022–2032
TABLE 9. Europe Market Estimates & Forecasts, 2022–2032
TABLE 10. Asia Pacific Market Estimates & Forecasts, 2022–2032
TABLE 11. Latin America Market Estimates & Forecasts, 2022–2032
TABLE 12. Middle East & Africa Market Estimates & Forecasts, 2022–2032
TABLE 13. Competitive Landscape: Market Shares of Top 10 Companies (2023)
TABLE 14. R&D Expenditure by Leading Players (2022)
TABLE 15. Device Adoption Rates by Method (2023)
TABLE 16. Average Surgical Outcomes by Procedure Type (2023)
TABLE 17. Reimbursement Rates Across Major Markets (2023)
TABLE 18. Hospital vs. ASC Utilization Trends (2022–2023)
TABLE 19. Surgeon Training & Credentialing Statistics (2023)
TABLE 20. Forecasted Impact of AI Integration on Market Growth

List Of Figures

LIST OF FIGURES

- FIG 1. Research Methodology Flowchart
- FIG 2. Market Estimation Techniques
- FIG 3. Global Market Size: Historical vs. Forecast
- FIG 4. Key Trends Influencing the Market
- FIG 5. CAGR Outlook by Segment (2024–2032)
- FIG 6. Porter's Five Forces Analysis
- FIG 7. PESTEL Analysis Summary
- FIG 8. Value Chain Analysis
- FIG 9. Market Share by Method (2023)
- FIG 10. Market Share by Surgical Procedure (2023)
- FIG 11. Market Share by End-use (2023)
- FIG 12. Regional Snapshot: 2022 vs. 2032
- FIG 13. North America Market Trend (2022–2032)
- FIG 14. Europe Market Trend (2022–2032)
- FIG 15. Asia Pacific Market Trend (2022–2032)
- FIG 16. Latin America Market Trend (2022–2032)
- FIG 17. Middle East & Africa Market Trend (2022–2032)
- FIG 18. Competitive Positioning Map
- FIG 19. Forecasted Impact of Emerging Technologies
- FIG 20. Surgeon Adoption Intentions by Region (2023)

I would like to order

Product name: Global Coronary Artery Bypass Graft Devices Market Size study, by Method (On-pump, Off-pump, Minimally Invasive Direct), by Surgical Procedure, by End-use, and Regional Forecasts 2022-2032

Product link: <https://marketpublishers.com/r/GB6ADCECFBB7EN.html>

Price: US\$ 3,218.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GB6ADCECFBB7EN.html>