

Sternal Closure Systems Market Opportunity, Growth Drivers, Industry Trend Analysis, and Forecast 2025 - 2034

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Abstracts

The Global Sternal Closure Systems Market was valued at USD 2.6 billion in 2024 and is estimated to grow at a CAGR of 5.3% to reach USD 4.4 billion by 2034, driven by the increasing prevalence of cardiovascular diseases, such as coronary artery disease, which has made open-heart surgeries, especially median sternotomies, more common. As the number of cardiac surgeries rises, the demand for effective sternal closure devices has surged. Advanced sternal closure systems have enhanced patient outcomes by reducing infection risks, improving healing, and minimizing hospital stay times. The success of these systems has led to lower post-surgical complications, boosting their use and the overall market growth.

Sternal closure systems are medical devices designed to stabilize and close the sternum after surgeries like heart surgery. These devices prevent complications such as wound dehiscence and infection by holding the two halves of the sternum together. Common devices used in these systems include wires, plates, screws, clips, and bone cement, which are essential for ensuring proper healing and preventing mechanical issues after surgery. The development of new, more efficient sternal closure devices, such as those using antimicrobial coatings or resorbable technology, continues to push the market forward.

The devices segment held the largest market share of 89.8% in 2024. The increasing number of open-heart surgeries, particularly coronary artery bypass grafting and heart valve replacement, continues to drive the demand for sternal closure devices. As cardiovascular diseases remain a leading cause of death worldwide, the need for reliable and efficient systems to fixate the sternum post-surgery is growing. Furthermore, advanced techniques and fixation methods, especially for high-risk or

complicated cases, are becoming more prevalent, further propelling market growth.

In 2024, the stainless steel sternal closure systems segment generated the largest revenue, valued at USD 1.4 billion. Stainless steel is favored due to its cost-effectiveness and durability, making it ideal for hospitals operating under tight budget constraints. Its ability to withstand sterilization while maintaining mechanical integrity is crucial in high-volume surgical environments, particularly in public hospitals and low-to-middle-income regions. This combination of affordability and reliability makes stainless steel a popular choice.

U.S. Sternal Closure Systems Market was valued at USD 1.1 billion in 2024 and is anticipated to reach USD 1.7 billion by 2034. The aging population and the high incidence of heart conditions in the U.S. are the main drivers behind this growth. Furthermore, healthcare institutions are increasingly adopting advanced sternal closure systems to reduce complications like wound infections and improve recovery outcomes. These systems help hospitals meet the cost-effectiveness and quality care standards of organizations like the Centers for Medicare & Medicaid Services.

Some key players in the Global Sternal Closure Systems Market include Jeil Medical, Zimmer Biomet, Acumed, Stryker, KLS Martin, Orthofix, Johnson & Johnson, and Praesidia. Key strategies in the sternal closure systems market include investing in research and development to enhance product offerings with innovative features, such as antimicrobial coatings and resorbable technologies. They also strengthen their market presence through strategic partnerships, acquisitions, and collaborations. Companies are increasingly expanding their product portfolios to offer more versatile and effective solutions for various patient needs. Additionally, enhancing their sales and distribution networks, particularly in emerging markets, helps these companies strengthen their foothold and reach a broader customer base. By continuously improving the functionality and performance of their products, these players ensure long-term growth in the competitive market.

Companies Mentioned

Able Medical, Abyrx, Acumed, B. Braun, IDEAR, Jace Medical, Jeil Medical, Johnson & Johnson, Kinamed, KLS Martin, Orthofix, Praesidia, Stryker, Waston Medical, Zimmer Biomet

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