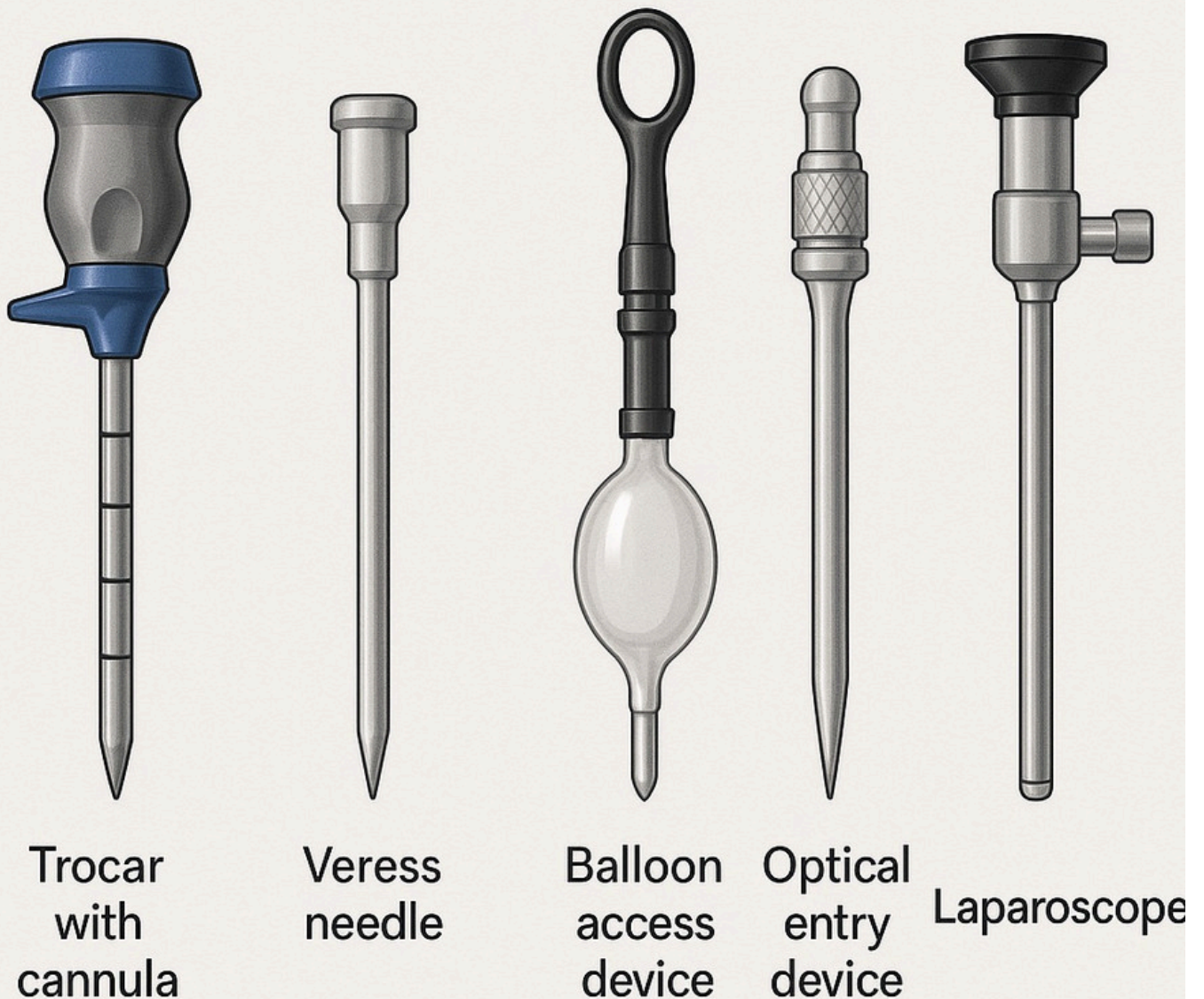




# Laparoscopic Access Devices Market Size, Share, Development Status, Type Application 2031

The laparoscopic access devices market size is expected to reach US\$ 3,717.16 million by 2031 from US\$ 2,100.58 million in 2024. The market is estimated to record a CAGR of 8.5% from 2025 to 2031.

## Laparoscopic Access Devices



The global market for laparoscopic access devices is undergoing substantial growth, propelled by the increasing adoption of ambulatory laparoscopic procedures, continuous advancements in trocar design and safety, and a growing demand for reduced-port access techniques.

This [market includes](#) a range of products such as trocars, cannulas, Veress needles, balloon access devices, and optical entry devices.

Innovations in trocars are primarily focused on enhancing ergonomics, dexterity, and functionality, leading to the development of improved graspers, dissectors, scissors, and needle holders. A notable shift has occurred from the traditional practice of reusing and sterilizing instruments to the widespread adoption of single-use instruments. This change is largely driven by concerns over cross-contamination risks and the increasing costs associated with sterilizing reusable devices.

An emerging trend in the laparoscopic access devices market is the development of "smart" handheld instruments that incorporate features previously exclusive to robotic systems, such as greater articulation and flexibility. A prime example is Genesis MedTech's ArtiSential articulating laparoscopic instruments, which received NMPA approval in July 2023. These instruments offer "hand-to-hand" operating capabilities, significantly improving precision during surgery. Continued advancements in both access devices and handheld instruments are crucial for enhancing surgical safety and efficiency.

## **Segments Covered: Laparoscopic Access Devices Market**

### **Laparoscopic Access Devices Market By Product**

- Trocars
- Cannulas
- Veress Needles
- Balloon Access Devices
- Optical Entry Devices

### **Laparoscopic Access Devices Market By Application**

- General Surgery
- Bariatric Surgery
- Gynaecological Surgery
- Colorectal Surgery
- Others

### **Laparoscopic Access Devices Market By End User**

- Hospitals and Clinics
- Ambulatory Surgical Centers

### **Laparoscopic Access Devices Market Regions Covered**

- North America
- Europe
- Asia-Pacific
- South and Central America
- Middle East and Africa

### **Laparoscopic Access Devices Market leaders and key company profiles**

- Medtronic Plc
- Johnson & Johnson
- Olympus Corp
- Stryker Corp
- Karl Storz SE & Co KG
- Boston Scientific Corp
- B Braun SE
- Smith & Nephew Plc
- Conmed Corp
- Intuitive Surgical Inc

### **Laparoscopic Access Devices Market Drivers and Opportunities:**

#### **Advancements in Trocar Design and Safety Driving Laparoscopic Access Devices Market**

The advances in trocar design and safety have been a major influence for the expansion of the market for laparoscopic access devices in the health care setting. New trocars now incorporate advancements including bladeless or optical tips, adjustable cannula lengths and incorporated safety shields that minimize the risk of damaging tissue or developing additional surgical complications. For example, Medtronic and Ethicon have developed optical trocars that allow surgeons to visualize entry at the time of trocar insertion. The use of bladeless trocars has been shown in published clinical studies to reduce entry-related complications by as much as 30% compared to sharp trocars. The development of disposable trocars that contain incorporated valves and antimicrobial coatings allow maintenance of pneumoperitoneum with reduced risk of wound infection, through minimizing tissue exposure. Other advancements that include flexible/organization handle and cannula designs are

designed to make the surgeon's access to the abdominal cavity more comfortable, controlled, and accurate.

The increase in the number of minimally invasive procedures being completed in the global market have supported the increase of demand for laparoscopic access devices. Hospitals around the globe continue to shift priorities to patient safety and the shortest/fastest overall journey back to recovery times; this has created ample demand for trocars with fewer post-operative complaints of pain, bleeding and impact in patients' stay in hospital. Furthermore, the increase in emerging countries in the Asia Pacific and Latin America regions to account for higher per capita economic indices and increase the availability of surgical services accessible to their citizens and in planning and conducting medical tourism for patient undergoing elective laparoscopic procedures only further strengthens the utilisation of laparoscopic access devices.

### **Increased Adoption of Disposable Access Products**

The trend towards disposable access products (especially trocars), creates a key opportunity for the laparoscopic access devices market, driven in large part by improved patient safety, more streamlined workflows, and evolving priorities in healthcare. Reusable traditional trocars are less expensive when purchased, but involve a cumbersome and time-consuming reprocessing method that includes cleaning, disinfecting, and sterilizing after every use, and there is a possibility that sterilization may not have been adequate. The potential for healthcare-associated infections (HAIs) has become a significant concern for hospitals and patients, as HAIs can lead to prolonged hospital stays, higher treatment costs, and even death.

The shift to all disposable trocars (from Medtronic, Johnson & Johnson - Ethicon, etc.) eliminates this risk by providing a device that is pre-sterilized, designed for single use, and sterile for every single patient. This not only greatly increases patient safety by reducing infection rates, but also improves operational efficiencies in the operating room now that reprocessing is no longer a concern. Hospitals can improve their turnaround times between surgeries while also being able to effectively deploy OR staff and reallocated hospital resources otherwise spent on sterilization. Although disposable trocars will likely cost more on a per-item basis, the costs to reprocess being added back into care (labor, special equipment, utilities, maintenance, etc.) and potential cost-savings from HAI avoidance are far greater.

### **Laparoscopic Access Devices Market Size and Share Analysis**

The laparoscopic access devices market is classified according to products into trocars, cannulas, veress needles, balloon access devices, and optical entry devices. The trocars segment led the market in 2024 and beyond. Trocars are the major product category in the

laparoscopic access devices market because they serve as the primary entry tool to create access points for instruments during minimally invasive surgeries. Their essential function in establishing a safe and stable passage into the abdominal cavity makes them indispensable. Constant innovations, such as bladeless tips, safety shields and ergonomic designs have been carried forward dominance by improving surgical precision, reducing complications and increasing the patient's safety.

In terms of applications, the market is segmented into general surgery, bariatric surgery, gynecological surgery, colorectal surgery, others. The general surgery segment had the largest market share in 2024. General surgery is the leading application segment for laparoscopic access devices due to the high volume of minimally invasive procedures performed in this field. Cholecystectomy, appendectomy, and hernia repair often uses laparoscopic techniques that depend a lot on access devices. To reduce the time of recovery, laparoscopy is adopted in general surgery, reducing scarring and complexity, which increases the continuous demand for these devices.

By end user, the market is segmented into hospitals and clinics, and ambulatory surgical centers. Hospitals and clinics are the largest end-user segment for laparoscopic access devices, as they do most of the work required for minimum invasive surgery. Their high surgical volumes and increasing adoption for advanced equipment make them the leading consumers in this laparoscopic access devices market segment.

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