

North America Helical CT Scanner Market Size and Forecast (2021 - 2031)

<https://marketpublishers.com/r/NF0CBE636FE5EN.html>

Date: April 2026

Pages: 184

Price: US\$ 3,450.00 (Single User License)

ID: NF0CBE636FE5EN

Abstracts

The North America Helical CT Scanner Market is projected to grow significantly, reaching an estimated US\$ 523.8 million by 2031, up from US\$ 389.2 million in 2024. This growth reflects a compound annual growth rate (CAGR) of 4.4% from 2025 to 2031.

Executive Summary and Market Analysis

The North America helical CT scanner market is divided into three primary regions: the United States, Canada, and Mexico. The increasing prevalence of chronic diseases, including cancer, cardiovascular disorders, and respiratory illnesses, necessitates accurate and timely diagnostic imaging. Additionally, the aging population in North America is driving demand for regular medical imaging, as older individuals are more likely to require such services.

Technological advancements in helical CT scanners have significantly improved their effectiveness and safety. Innovations such as enhanced imaging speed, higher resolution, and reduced radiation exposure have made these devices more appealing to healthcare facilities. Furthermore, the integration of artificial intelligence (AI) and machine learning into diagnostic imaging has improved the accuracy and efficiency of scans, facilitating better clinical decision-making.

Government initiatives aimed at modernizing healthcare infrastructure, along with favorable reimbursement policies in the US and Canada, are also contributing to market growth. Increased awareness among healthcare providers and patients regarding the benefits of early diagnosis is further propelling the demand for advanced CT imaging technologies. The presence of major market players and ongoing investments in

research and development for imaging technologies support continuous innovation and market penetration.

Strategic Insights

Market Segmentation Analysis

The North America Helical CT Scanner Market can be segmented based on type, slice type, and end user:

By Type: The market is divided into Double-Layer and Multi-Layer helical CT scanners, with the Multi-Layer segment leading the market in 2024.

By Slice Type: The segmentation includes 1-16 Slices, 17-64 Slices, 128-160 Slices, and >160 Slices, where the 17-64 Slices segment dominated in 2024.

By End User: The market is categorized into Hospitals, Medical Centers, and Ambulatory Surgical Centers, with Hospitals being the leading segment in 2024.

Market Outlook

The helical configuration is crucial for volumetric coverage in dynamic imaging, and it works effectively with photon-counting computed tomography (PCCT). This technology enhances the efficiency of helical scans by counting individual photons and differentiating energy levels, allowing for ultra-low-dose protocols while maintaining diagnostic quality. In oncology, PCCT's superior tissue characterization improves tumor detection in helical abdominal scans by distinguishing subtle variations in iodine uptake.

For instance, Siemens Healthineers' NAEOTOM Alpha is a dual-source system that supports high-speed helical acquisitions for cardiac imaging, significantly reducing motion artifacts and radiation exposure during coronary stent evaluations. By 2025, it is expected to be installed in over 100 sites globally, revolutionizing workflows in high-volume centers. The AI-driven myExam Companion automates protocol selection, enhancing the efficiency of helical scanning.

Similarly, Canon's partnership with Redlen Technologies is advancing cadmium zinc telluride (CZT)-based detectors for ultra-high-resolution helical PCCT, particularly in musculoskeletal applications where micro-fractures require sub-millimeter detail. GE

HealthCare is also making strides with photon-counting prototypes that promise spectral helical imaging for neurology, improving stroke perfusion mapping with lower doses. Philips is incorporating PCCT principles into its spectral-detector helical platforms, such as the Ingenuity Elite, which enhances virtual non-contrast capabilities and reduces exam times by 23% through AI iso-centering.

In oncology, PCCT-equipped helical scanners facilitate precise tumor delineation and enhance the detection of microcalcifications, which is vital for early diagnosis and treatment planning. In cardiology, photon-counting detectors minimize blooming artifacts around stents and calcifications, improving the accuracy of coronary artery assessments. Neurology benefits from enhanced visualization of small vessels and brain structures, which is critical for evaluating strokes and trauma.

The rise of photon-counting CT technology is transforming the helical CT scanner market by providing sharper, faster, and safer imaging. This advancement supports precision medicine, catering to diverse patient needs from pediatric low-dose trauma scans to geriatric oncology surveillance. As research and development in multi-energy thresholds and AI reconstruction progress, PCCT is set to redefine helical scanning, ensuring safer and more precise diagnostic insights.

Country Insights

The North America Helical CT Scanner Market is further segmented by country, with the United States holding the largest market share in 2024. In 2023, approximately 93 million CT examinations were performed in the US, involving around 61.5 million patients, predominantly adults. With over 1.9 million new cancer cases reported annually, the demand for helical CT scans for staging and monitoring is significant, particularly for lung, breast, and prostate cancers.

The American Heart Association reports nearly 919,000 cardiovascular disease deaths annually, with a substantial portion of adults diagnosed via cardiac CT angiography. The increasing prevalence of chronic respiratory illnesses and neurological disorders, coupled with lifestyle factors such as obesity and smoking, underscores the need for frequent imaging in hospitals and diagnostic centers.

Healthcare providers like the Mayo Clinic and Cleveland Clinic are integrating advanced helical CT systems from manufacturers such as GE Healthcare and Siemens Healthineers to enhance oncology screenings and cardiac assessments. These systems enable low-dose protocols that minimize patient risk while improving image

quality, aligning with national guidelines from organizations like the American College of Radiology.

The integration of AI and machine learning into helical CT technology is automating image reconstruction, reducing scan times, and enhancing diagnostic accuracy. In 2025, the FDA approved Siemens' NAEOTOM Alpha, a photon-counting CT that offers spectral imaging for improved tissue differentiation, particularly beneficial for early-stage lung cancer detection.

Company Profiles

Key players in the North America Helical CT Scanner Market include Koninklijke Philips NV, Canon Inc, GE HealthCare Technologies Inc, Narang Medical Limited, Neusoft Medical Systems, FUJIFILM Holdings Corp, Siemens Healthineers AG, Shanghai United Imaging Healthcare Co., LTD, NeuroLogica Corp, and SinoVision Technology (Beijing) Co., Ltd. These companies are employing various strategies such as expansion, product innovation, and mergers and acquisitions to enhance their market presence and offer innovative products to consumers.

Contents

1. INTRODUCTION

- 1.1 Report Guidance
- 1.2 Market Segmentation

2. EXECUTIVE SUMMARY

- 2.1 Key Insights
- 2.2 Market Attractiveness

3. RESEARCH METHODOLOGY

- 3.1 Secondary Research
- 3.2 Primary Research
 - 3.2.1 Hypothesis formulation:
 - 3.2.2 Macroeconomic factor analysis:
 - 3.2.3 Developing base number:
 - 3.2.4 Data Triangulation:
 - 3.2.5 Country-level data:

4. HELICAL CT SCANNER MARKET LANDSCAPE

- 4.1 Market Overview
- 4.2 PEST Analysis
- 4.3 Ecosystem Analysis
 - 4.3.1 List of Vendors in the Value Chain

5. NORTH AMERICA HELICAL CT SCANNER MARKET - KEY MARKET DYNAMICS

- 5.1 Market Drivers
- 5.2 Market Restraints
- 5.3 Market Opportunities
- 5.4 Future Trends
- 5.5 Impact of Drivers and Restraints:

6. HELICAL CT SCANNER MARKET - NORTH AMERICA MARKET ANALYSIS

6.1 North America Helical CT Scanner Market Revenue (US\$ Million), 2024 - 2031

6.2 North America Helical CT Scanner Market Forecast and Analysis

7. NORTH AMERICA HELICAL CT SCANNER MARKET REVENUE ANALYSIS - BY TYPE

7.1 Double-Layer

7.1.1 Overview

7.1.2 Double-Layer: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

7.2 Multi-Layer

7.2.1 Overview

7.2.2 Multi-Layer: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8. NORTH AMERICA HELICAL CT SCANNER MARKET REVENUE ANALYSIS - BY SLICE TYPE

8.1 1-16 Slices

8.1.1 Overview

8.1.2 1-16 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.2 17-64 Slices

8.2.1 Overview

8.2.2 17-64 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.3 128-160 Slices

8.3.1 Overview

8.3.2 128-160 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

8.4 >160 Slices

8.4.1 Overview

8.4.2 >160 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9. NORTH AMERICA HELICAL CT SCANNER MARKET REVENUE ANALYSIS - BY END USER

9.1 Hospitals

9.1.1 Overview

9.1.2 Hospitals: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.2 Medical Center

9.2.1 Overview

9.2.2 Medical Center: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

9.3 Ambulatory Surgical Centers

9.3.1 Overview

9.3.2 Ambulatory Surgical Centers: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10. NORTH AMERICA HELICAL CT SCANNER MARKET - COUNTRY ANALYSIS

10.1 North America

10.1.1 North America Helical CT Scanner Market Revenue and Forecast and Analysis - by Country

10.1.1.1 North America Helical CT Scanner Market Revenue and Forecast and Analysis - by Country

10.1.1.2 United States: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.1.1.2.1 United States: North America Helical CT Scanner Market Share - by Type

10.1.1.2.2 United States: North America Helical CT Scanner Market Share - by Slice Type

10.1.1.2.3 United States: North America Helical CT Scanner Market Share - by End User

10.1.2.3 Canada: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.1.2.3.1 Canada: North America Helical CT Scanner Market Share - by Type

10.1.2.3.2 Canada: North America Helical CT Scanner Market Share - by Slice Type

10.1.2.3.3 Canada: North America Helical CT Scanner Market Share - by End User

10.1.3.4 Mexico: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

10.1.3.4.1 Mexico: North America Helical CT Scanner Market Share - by Type

10.1.3.4.2 Mexico: North America Helical CT Scanner Market Share - by Slice Type

10.1.3.4.3 Mexico: North America Helical CT Scanner Market Share - by End User

11 COMPETITIVE LANDSCAPE

- 11.1 Heat Map Analysis by Key Players
- 11.2 Company Positioning & Concentration

12 INDUSTRY LANDSCAPE

- 12.1 Overview
- 12.2 New Product Development
- 12.3 Merger and Acquisition
- 12.4 Other Strategic Developments

13 COMPANY PROFILES

- 13.1 Koninklijke Philips NV
 - 13.1.1 Key Facts
 - 13.1.2 Business Description
 - 13.1.3 Products and Services
 - 13.1.4 Financial Overview
 - 13.1.5 SWOT Analysis
 - 13.1.6 Key Developments
- 13.2 Canon Inc
 - 13.2.1 Key Facts
 - 13.2.2 Business Description
 - 13.2.3 Products and Services
 - 13.2.4 Financial Overview
 - 13.2.5 SWOT Analysis
 - 13.2.6 Key Developments
- 13.3 GE HealthCare Technologies Inc
 - 13.3.1 Key Facts
 - 13.3.2 Business Description
 - 13.3.3 Products and Services
 - 13.3.4 Financial Overview
 - 13.3.5 SWOT Analysis
 - 13.3.6 Key Developments
- 13.4 Narang Medical Limited.
 - 13.4.1 Key Facts
 - 13.4.2 Business Description
 - 13.4.3 Products and Services
 - 13.4.4 Financial Overview
 - 13.4.5 SWOT Analysis

- 13.4.6 Key Developments
- 13.5 Neusoft Medical Systems
 - 13.5.1 Key Facts
 - 13.5.2 Business Description
 - 13.5.3 Products and Services
 - 13.5.4 Financial Overview
 - 13.5.5 SWOT Analysis
 - 13.5.6 Key Developments
- 13.6 FUJIFILM Holdings Corp
 - 13.6.1 Key Facts
 - 13.6.2 Business Description
 - 13.6.3 Products and Services
 - 13.6.4 Financial Overview
 - 13.6.5 SWOT Analysis
 - 13.6.6 Key Developments
- 13.7 Siemens Healthineers AG
 - 13.7.1 Key Facts
 - 13.7.2 Business Description
 - 13.7.3 Products and Services
 - 13.7.4 Financial Overview
 - 13.7.5 SWOT Analysis
 - 13.7.6 Key Developments
- 13.8 Shanghai United Imaging Healthcare Co., LTD
 - 13.8.1 Key Facts
 - 13.8.2 Business Description
 - 13.8.3 Products and Services
 - 13.8.4 Financial Overview
 - 13.8.5 SWOT Analysis
 - 13.8.6 Key Developments
- 13.9 NeuroLogica Corp
 - 13.9.1 Key Facts
 - 13.9.2 Business Description
 - 13.9.3 Products and Services
 - 13.9.4 Financial Overview
 - 13.9.5 SWOT Analysis
 - 13.9.6 Key Developments
- 13.10 SinoVision Technology (Beijing) Co., Ltd.
 - 13.10.1 Key Facts
 - 13.10.2 Business Description

13.10.3 Products and Services

13.10.4 Financial Overview

13.10.5 SWOT Analysis

13.10.6 Key Developments

14. APPENDIX

14.1 About The Insight Partners

List Of Tables

LIST OF TABLES

Table 1. North America Helical CT Scanner Market Segmentation

Table 2. List of Vendors

Table 3. North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Table 4. North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Type

Table 5. North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Slice Type

Table 6. North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by End User

Table 7. North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Country

Table 8. United States: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Type

Table 9. United States: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Slice Type

Table 10. United States: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by End User

Table 11. Canada: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Type

Table 12. Canada: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Slice Type

Table 13. Canada: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by End User

Table 14. Mexico: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Type

Table 15. Mexico: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by Slice Type

Table 16. Mexico: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million) - by End User

Table 17. Heat Map Analysis by Key Players

List Of Figures

LIST OF FIGURES

- Figure 1. North America Helical CT Scanner Market Segmentation - Country
- Figure 2. PEST Analysis
- Figure 3. Ecosystem: Helical CT Scanner Market
- Figure 4. North America Helical CT Scanner Market - Key Market Dynamics
- Figure 5. Impact Analysis of Drivers and Restraints
- Figure 6. North America Helical CT Scanner Market Revenue (US\$ Million), 2024 - 2031
- Figure 7. North America Helical CT Scanner Market Share (%) - by Type, 2024 and 2031
- Figure 8. Double-Layer: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 9. Multi-Layer: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 10. North America Helical CT Scanner Market Share (%) - by Slice Type, 2024 and 2031
- Figure 11. 1-16 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 12. 17-64 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 13. 128-160 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 14. >160 Slices: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 15. North America Helical CT Scanner Market Share (%) - by End User, 2024 and 2031
- Figure 16. Hospitals: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 17. Medical Center: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 18. Ambulatory Surgical Centers: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)
- Figure 19. North America Helical CT Scanner Market Breakdown by Key Countries, 2024 and 2031 (%)
- Figure 20. United States: North America Helical CT Scanner Market - Revenue and

Forecast, 2021 - 2031 (US\$ Million)

Figure 21. Canada: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 22. Mexico: North America Helical CT Scanner Market - Revenue and Forecast, 2021 - 2031 (US\$ Million)

Figure 23. Company Positioning & Concentration

I would like to order

Product name: North America Helical CT Scanner Market Size and Forecast (2021 - 2031)

Product link: <https://marketpublishers.com/r/NF0CBE636FE5EN.html>

Price: US\$ 3,450.00 (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/NF0CBE636FE5EN.html>