

Computer Aided Detection Market Forecasts to 2034 – Global Analysis By Product Type (Abdominal CAD, Prostrate CAD, Breast CAD, Cardiovascular CAD and Other Product Types), Indication (Ultrasound Resonance Imaging, X-ray Imaging, Magnetic Resonance Imaging, Computed Tomography, Nuclear Resonance Imaging, Mammography and Other Indications), Application, End User and By Geography

<https://marketpublishers.com/r/CB5E32718F37EN.html>

Date: April 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: CB5E32718F37EN

Abstracts

According to Statistics MRC, the Global Computer Aided Detection Market is accounted for \$1027.6 million in 2026 and is expected to reach \$1887.9 million by 2034 growing at a CAGR of 7.9% during the forecast period. Computer-aided detection (CAD) is a collection of algorithms that use pattern recognition to help physicians interpret medical images. The computer-aided detection software aids in the diagnosis of various diseases, including coronary artery disease, cancer, cardiovascular diseases, and neurological diseases, through imaging modalities such as x-ray imaging, magnetic resonance imaging, ultrasound imaging, and computed tomography.

According to the World Health Organization (WHO) estimates, in 2022, cancer is the leading cause of death worldwide, resulting in approximately 10 million deaths in 2020, or nearly one in six deaths.

Market Dynamics:

Driver:

Rising demand for early disease detection

Early detection of diseases is crucial, as it enhances the chances of successful treatment and improves patient outcomes. CAD systems integrated with imaging modalities analyze the images and highlight potential areas of concern, aiding radiologists in the early detection of diseases. Moreover, the rising prevalence of chronic diseases such as cancer, cardiovascular diseases, and neurological disorders has heightened the need for early diagnosis. Therefore, growing demand for early disease detection is a significant driver accelerating market demand.

Restraint:

High implementation costs

High implementation costs pose a significant restraint to the adoption of computer-aided detection (CAD) systems on the market. Implementing CAD systems requires substantial investment, which includes the cost of acquiring the software, hardware infrastructure, and training of healthcare professionals. CAD software itself can be expensive, especially if it is designed for specific medical specialties or imaging modalities. Additionally, the hardware requirements to support CAD systems, such as high-performance computers and storage solutions, can add to the overall implementation costs.

Opportunity:

Evolution of medical imaging technologies

The continuous evolution of medical imaging technologies, such as computed tomography (CT), magnetic resonance imaging (MRI), and mammography, has paved the way for more sophisticated and detailed diagnostic capabilities. These advancements not only enhance the quality of medical imaging but also create opportunities for CAD systems to excel in their ability to detect subtle abnormalities and assist healthcare professionals in making accurate diagnoses. These innovations in medical imaging technologies accelerate market expansion.

Threat:

Data privacy

The implementation of CAD involves the processing and storage of sensitive patient data, including medical images and associated health records. As CAD systems analyze and interpret this information, there is a heightened concern for potential breaches and unauthorized access. Maintaining the privacy and security of patient data is crucial to complying with healthcare regulations and building trust among patients and healthcare providers. Therefore, data privacy is a significant concern, hindering market demand.

Covid-19 Impact

The increased focus on healthcare and diagnostics during the pandemic has underscored the importance of advanced technologies like CAD in detecting and monitoring diseases. The demand for more accurate and efficient diagnostic tools has risen, driving interest in CAD solutions that can aid in the interpretation of medical images, especially in the context of respiratory illnesses such as COVID-19. However, the pandemic has also presented challenges for the CAD market. Financial constraints on healthcare facilities, coupled with disruptions in the supply chain, have affected the adoption of CAD systems.

The nuclear resonance imaging segment is expected to be the largest during the forecast period

The nuclear resonance imaging segment is estimated to hold the largest share. In computer-aided detection, nuclear resonance imaging plays a significant role in enhancing the accuracy and efficiency of image analysis. CAD systems utilize the detailed images generated by nuclear resonance imaging to identify potential abnormalities or suspicious patterns that may indicate the presence of a disease or condition. Moreover, the integration of NRI with CAD technology has led to improved detection rates, reduced false positives, and enhanced overall diagnostic accuracy.

The oncology segment is expected to have the highest CAGR during the forecast period

The oncology segment is anticipated to have lucrative growth during the forecast period. CAD technologies play a transformative role in oncology by aiding healthcare professionals in the early detection and characterization of cancerous lesions through the analysis of medical imaging data. In modalities like mammography, CT scans, and MRI, CAD systems utilize advanced algorithms to identify subtle abnormalities, potential tumours, and irregularities in tissue structures that may be indicative of cancer.

Region with largest share:

Asia Pacific commanded the largest market share during the extrapolated period. The demand for CAD solutions in this region is escalating due to increasing awareness of the benefits of early disease detection and a rising prevalence of diseases like cancer. Governments across Asia-Pacific are investing significantly in healthcare modernization, fostering an environment conducive to CAD market expansion. Additionally, in countries like China and India, where large populations contribute to a high disease burden, CAD systems are gaining traction for their role in improving diagnostic accuracy and efficiency.

Region with highest CAGR:

North America is expected to witness profitable growth over the projection period, owing to robust healthcare infrastructure, coupled with a high prevalence of chronic diseases, positions CAD as a crucial component in diagnostic workflows. The United States, in particular, dominates the North American CAD market, owing to substantial investments in research and development, a well-established healthcare sector, and a proactive approach to integrating cutting-edge technologies.

Key players in the market

Some of the key players in the Computer Aided Detection Market include Hologic Inc, CANON Medical Systems Corporation, EDDA Technology, Inc, Koninklijke Philips N.V, Siemens, FUJIFILM Holdings Corporation, NANO-X Imaging LTD., General Electric, IBM, Riverain Technologies, iCAD Inc, Median Technologies, Carestream Health, Shimadzu Analytical (India) Pvt. Ltd and Karyopharm.

Key Developments:

In October 2023, Hologic, Inc., a global leader in women's health, announced an innovative new partnership with the American Association of Gynecologic Laparoscopists (AAGL) and Inovus Medical.

In October 2023, Hologic, Inc., a global leader in women's health, announced an innovative new partnership with the American Association of Gynecologic Laparoscopists (AAGL) and Inovus Medical. Hologic becomes the chief provider of hystero scopes for AAGL's Essentials in Minimally Invasive Gynecologic Surgery (EMIGS) hands-on hysteroscopy skills training for OB-GYN residents.

Product Types Covered:

Abdominal CAD

Prostrate CAD

Breast CAD

Cardiovascular CAD

Other Product Types

Indications Covered:

Ultrasound Resonance Imaging

X-ray Imaging

Magnetic Resonance Imaging

Computed Tomography

Nuclear Resonance Imaging

Mammography

Other Indications

Applications Covered:

Oncology

Cardiovascular and Neurological Cancer

End Users Covered:

Diagnostic Centers

Hospitals

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Product Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL COMPUTER AIDED DETECTION MARKET, BY PRODUCT TYPE

- 5.1 Introduction
- 5.2 Abdominal CAD
- 5.3 Prostrate CAD
- 5.4 Breast CAD
- 5.5 Cardiovascular CAD
- 5.6 Other Product Types

6 GLOBAL COMPUTER AIDED DETECTION MARKET, BY INDICATION

- 6.1 Introduction
- 6.2 Ultrasound Resonance Imaging
- 6.3 X-ray Imaging
- 6.4 Magnetic Resonance Imaging
- 6.5 Computed Tomography
- 6.6 Nuclear Resonance Imaging
- 6.7 Mammography
- 6.8 Other Indications

7 GLOBAL COMPUTER AIDED DETECTION MARKET, BY APPLICATION

- 7.1 Introduction
- 7.2 Oncology
 - 7.2.1 Colorectal Cancer
 - 7.2.2 Breast Cancer
 - 7.2.3 Prostate Cancer
 - 7.2.4 Lung Cancer
 - 7.2.5 Bone Cancer
 - 7.2.6 Liver Cancer
- 7.3 Cardiovascular and Neurological Cancer

8 GLOBAL COMPUTER AIDED DETECTION MARKET, BY END USER

- 8.1 Introduction
- 8.2 Diagnostic Centers
- 8.3 Hospitals
- 8.4 Other End Users

9 GLOBAL COMPUTER AIDED DETECTION MARKET, BY GEOGRAPHY

9.1 Introduction

9.2 North America

9.2.1 US

9.2.2 Canada

9.2.3 Mexico

9.3 Europe

9.3.1 Germany

9.3.2 UK

9.3.3 Italy

9.3.4 France

9.3.5 Spain

9.3.6 Rest of Europe

9.4 Asia Pacific

9.4.1 Japan

9.4.2 China

9.4.3 India

9.4.4 Australia

9.4.5 New Zealand

9.4.6 South Korea

9.4.7 Rest of Asia Pacific

9.5 South America

9.5.1 Argentina

9.5.2 Brazil

9.5.3 Chile

9.5.4 Rest of South America

9.6 Middle East & Africa

9.6.1 Saudi Arabia

9.6.2 UAE

9.6.3 Qatar

9.6.4 South Africa

9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

10.1 Agreements, Partnerships, Collaborations and Joint Ventures

10.2 Acquisitions & Mergers

- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Hologic, Inc
- 11.2 CANON Medical Systems Corporation
- 11.3 EDDA Technology, Inc
- 11.4 Koninklijke Philips N.V
- 11.5 Siemens
- 11.6 FUJIFILM Holdings Corporation
- 11.7 NANO-X Imaging LTD.
- 11.8 General Electric
- 11.9 IBM
- 11.10 Riverain Technologies
- 11.11 iCAD Inc
- 11.12 Median Technologies
- 11.13 Carestream Health
- 11.14 Shimadzu Analytical (India) Pvt. Ltd
- 11.15 Karyopharm

List Of Tables

LIST OF TABLES

Table 1 Global Computer Aided Detection Market Outlook, By Region (2023–2034) (\$MN)

Table 2 Global Computer Aided Detection Market Outlook, By Product Type (2023–2034) (\$MN)

Table 3 Global Computer Aided Detection Market Outlook, By Abdominal CAD (2023–2034) (\$MN)

Table 4 Global Computer Aided Detection Market Outlook, By Prostrate CAD (2023–2034) (\$MN)

Table 5 Global Computer Aided Detection Market Outlook, By Breast CAD (2023–2034) (\$MN)

Table 6 Global Computer Aided Detection Market Outlook, By Cardiovascular CAD (2023–2034) (\$MN)

Table 7 Global Computer Aided Detection Market Outlook, By Other Product Types (2023–2034) (\$MN)

Table 8 Global Computer Aided Detection Market Outlook, By Indication (2023–2034) (\$MN)

Table 9 Global Computer Aided Detection Market Outlook, By Ultrasound Resonance Imaging (2023–2034) (\$MN)

Table 10 Global Computer Aided Detection Market Outlook, By X-ray Imaging (2023–2034) (\$MN)

Table 11 Global Computer Aided Detection Market Outlook, By Magnetic Resonance Imaging (2023–2034) (\$MN)

Table 12 Global Computer Aided Detection Market Outlook, By Computed Tomography (2023–2034) (\$MN)

Table 13 Global Computer Aided Detection Market Outlook, By Nuclear Resonance Imaging (2023–2034) (\$MN)

Table 14 Global Computer Aided Detection Market Outlook, By Mammography (2023–2034) (\$MN)

Table 15 Global Computer Aided Detection Market Outlook, By Other Indications (2023–2034) (\$MN)

Table 16 Global Computer Aided Detection Market Outlook, By Application (2023–2034) (\$MN)

Table 17 Global Computer Aided Detection Market Outlook, By Oncology (2023–2034) (\$MN)

Table 18 Global Computer Aided Detection Market Outlook, By Colorectal Cancer

(2023–2034) (\$MN)

Table 19 Global Computer Aided Detection Market Outlook, By Breast Cancer

(2023–2034) (\$MN)

Table 20 Global Computer Aided Detection Market Outlook, By Prostate Cancer

(2023–2034) (\$MN)

Table 21 Global Computer Aided Detection Market Outlook, By Lung Cancer

(2023–2034) (\$MN)

Table 22 Global Computer Aided Detection Market Outlook, By Bone Cancer

(2023–2034) (\$MN)

Table 23 Global Computer Aided Detection Market Outlook, By Liver Cancer

(2023–2034) (\$MN)

Table 24 Global Computer Aided Detection Market Outlook, By Cardiovascular and Neurological Cancer (2023–2034) (\$MN)

Table 25 Global Computer Aided Detection Market Outlook, By End User (2023–2034) (\$MN)

Table 26 Global Computer Aided Detection Market Outlook, By Diagnostic Centers (2023–2034) (\$MN)

Table 27 Global Computer Aided Detection Market Outlook, By Hospitals (2023–2034) (\$MN)

Table 28 Global Computer Aided Detection Market Outlook, By Other End Users (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Computer Aided Detection Market Forecasts to 2034 – Global Analysis By Product Type (Abdominal CAD, Prostrate CAD, Breast CAD, Cardiovascular CAD and Other Product Types), Indication (Ultrasound Resonance Imaging, X-ray Imaging, Magnetic Resonance Imaging, Computed Tomography, Nuclear Resonance Imaging, Mammography and Other Indications), Application, End User and By Geography

Product link: <https://marketpublishers.com/r/CB5E32718F37EN.html>

Price: US\$ 4,150.00 (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/CB5E32718F37EN.html>