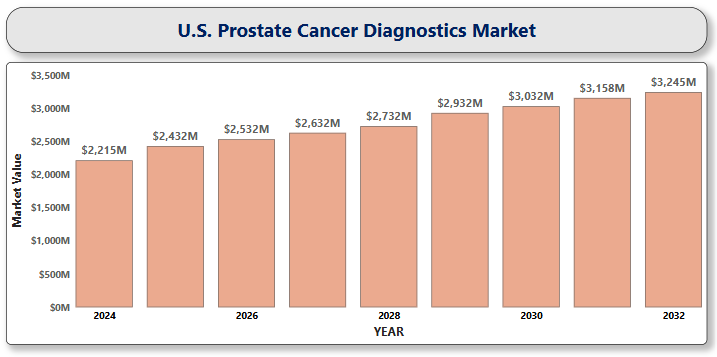
A close-up of hands holding a tablet and a pen

Description automatically generated**U.S. Prostate Cancer Diagnostics Market**

According to Intelli, the U.S. Prostate Cancer Diagnostics Market size was valued at USD 2,215.97 Million in 2024 and is projected to reach USD 3,245.28 Million by 2032, growing at a CAGR of 5.41% from 2025 to 2032.



Prostate cancer is one of the most prevalent malignancies among men worldwide, ranking as the second most commonly diagnosed cancer and a leading cause of cancer-related mortality. This cancer typically develops slowly and can remain confined to the gland for many years. However, in some cases, it may grow aggressively and metastasize to other parts of the body, particularly the bones and lymph nodes, leading to life-threatening complications. Risk factors include age (with the majority of cases occurring in men over 50), family history of prostate cancer, ethnicity, lifestyle factors, and genetic mutations such as BRCA1 and BRCA2.

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Description automatically generatedEarly and accurate diagnosis plays a pivotal role in improving patient outcomes, guiding treatment strategies, and reducing the overall burden on healthcare systems. Prostate cancer diagnostics encompasses a range of clinical approaches, from traditional screening tools like prostate-specific antigen (PSA) testing and digital rectal examination (DRE) to advanced molecular diagnostics and imaging technologies. In recent years, significant advancements have transformed the landscape of prostate cancer diagnostics. The limitations of PSA testing, including false positives and overdiagnosis, have driven the development of more precise and individualized diagnostic methods. Emerging tools such as multiparametric MRI (mpMRI), liquid biopsies, gene expression profiling, and next-generation sequencing (NGS) are enhancing the accuracy of detection, risk stratification, and prognosis. These innovations not only allow for earlier detection of clinically significant tumors but also help differentiate aggressive cancers from indolent ones, thereby minimizing unnecessary treatments. The integration of artificial intelligence (AI) and machine learning in imaging and pathology is further revolutionizing the field, enabling more accurate interpretation of complex diagnostic data. In addition, the growing understanding of prostate cancer’s molecular biology is paving the way for more precise diagnostics and personalized treatment strategies. With advancements in genomics, biomarker development, and therapeutic interventions, the long-term outlook for prostate cancer patients continues to improve, promising better survival rates and enhanced quality of life.

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**U.S. Prostate Cancer Diagnostics Market Definition**

The U.S. Prostate Cancer Diagnostics Market refers to the industry segment focused on the development, production, and commercialization of tools, technologies, and services used to detect and diagnose prostate cancer in male patients across the United States. Key components of the U.S. Prostate Cancer Diagnostics Market include screening tests (PSA, DRE), imaging technologies (mpMRI, TRUS, PET), biopsy techniques (TRUS-guided, MRI-guided, fusion), molecular and genomic testing (PCA3, SelectMDx, ConfirmMDx, NGS), and non-invasive liquid biopsies using blood, urine, or other fluids.

**U.S. Prostate Cancer Diagnostics Market Overview**

The U.S. Prostate Cancer Diagnostics Market is driven by a combination of demographic, technological, and clinical factors that collectively contribute to its sustained growth. A primary driver is the rising prevalence of prostate cancer, particularly among the aging male population, which increases the demand for early and accurate diagnostic tools. The growing awareness of cancer screening and early detection, supported by public health initiatives and advocacy groups, has led to more men undergoing regular checkups, thus boosting the use of diagnostic tests. Technological advancements have significantly improved the accuracy and efficiency of diagnostic methods, including innovations in imaging (such as multiparametric MRI), molecular testing, and liquid biopsy technologies that allow for non-invasive cancer detection and personalized risk assessment. Moreover, the growing emphasis on precision medicine and genomics-driven diagnostics is propelling the adoption of advanced molecular assays and NGS technologies, enabling more accurate prognostic insights and personalized treatment strategies. This trend is further supported by favorable reimbursement frameworks, proactive government initiatives, and increased investments in healthcare infrastructure and cancer research, all of which are contributing to the continued expansion of the U.S. prostate cancer diagnostics market.

**U.S. Prostate Cancer Diagnostics Market Segmentation**

The U.S. prostate cancer diagnostics market can be segmented based on test type, cancer type, and end user.

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**U.S. Prostate Cancer Diagnostics Market, By Test Type**

* **Preliminary Screening Tests**
* **Prostate-Specific Antigen (PSA) Test**
* **Digital Rectal Examination (DRE)**
* **Imaging Techniques**
* **Multiparametric Magnetic Resonance Imaging (mpMRI)**
* **Transrectal Ultrasound (TRUS)**
* **Positron Emission Tomography (PET) Scans**
* **Biopsy Procedures**
* **TRUS-Guided Biopsy**
* **Fusion Biopsy**
* **MRI-Guided Biopsy**
* **Molecular and Genomic Testing**
* **Biomarker Assays**
* **Gene Expression Profiling**
* **Next-Generation Sequencing**
* **Liquid Biopsies**
* **Blood-based Tests**
* **Urine-based Tests**

The U.S. Prostate Cancer Diagnostics Market, when segmented by test type, reflects a dynamic landscape shaped by evolving clinical needs and technological advancements. Preliminary screening tests, particularly the Prostate-Specific Antigen (PSA) test, currently hold a significant share of the market due to their widespread use in early detection and routine screening. However, imaging techniques, especially multiparametric MRI (mpMRI), are gaining momentum, driven by their superior accuracy in detecting clinically significant prostate cancer and reducing unnecessary biopsies. Biopsy procedures, including TRUS-guided and MRI-guided biopsies, continue to be critical for definitive diagnosis, maintaining a robust presence in the market. Notably, molecular and genomic testing is one of the fastest-growing segments, fueled by the rise of precision medicine and increasing adoption of biomarker assays and NGS to enhance risk stratification and treatment planning. Liquid biopsies, though currently occupying a smaller market share, A close-up of hands holding a tablet and a pen

Description automatically generatedare expected to witness substantial growth due to their non-invasive nature and potential for early detection.

**U.S. Prostate Cancer Diagnostics Market, By Cancer Type**

* **Localized Prostate Cancer**
* **Advanced/Metastatic Prostate Cancer**

The U.S. Prostate Cancer Diagnostics Market, when segmented by cancer type, is broadly categorized into localized prostate cancer and advanced/metastatic prostate cancer, each with distinct diagnostic requirements and clinical approaches. Localized prostate cancer, which accounts for the majority of diagnosed cases, dominates the market share due to the high prevalence of early-stage detection facilitated by routine PSA screening and increased public awareness. In contrast, the advanced/metastatic prostate cancer segment, though smaller in volume, represents a growing and high-value market due to the complexity of diagnosis and need for advanced molecular and imaging tools.

**U.S. Prostate Cancer Diagnostics Market, By End User**

* **Hospitals**
* **Diagnostic Laboratories**
* **Ambulatory Surgical Centers**
* **Cancer Research Centers**

The U.S. prostate cancer diagnostics market is experiencing significant growth, driven by rising prostate cancer prevalence, technological advancements, and increased awareness of early detection. Among the end users, hospitals dominate the market share, due to their advanced diagnostic infrastructure, wide patient reach, and integration of multidisciplinary care. Diagnostic laboratories follow closely, benefiting from the increasing adoption of specialized tests and precision diagnostics. Ambulatory surgical centers and cancer research centers are emerging as important players in the prostate cancer diagnostics landscape, supported by growing investments in advanced research and a rising preference for outpatient diagnostic procedures. Their expanding role reflects a broader shift toward decentralized and patient-centric care models in the U.S. healthcare system.

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**Key Players**

The “U.S. prostate cancer diagnostics market" study report will provide valuable insight emphasizing the U.S. market. The major players in the market Guardant Health, Exact Sciences, Natera, Tempus, PathAI, Biodesix, Biocept, Siemens Healthineers, Abbott Laboratories, Roche Diagnostics, Thermo Fisher Scientific, MDxHealth, OPKO Health, GE Healthcare, Philips Healthcare among others. Our market analysis also entails a section solely dedicated to such major players wherein our analysts provide an insight into the financial statements of all the major players, along with product benchmarking and SWOT analysis.

**Key Developments**

* In 2025, the FDA approved Gozellix ® (TLX007-CDx), a new PSMA-PET imaging agent for prostate cancer. It has a longer shelf life and wider distribution, making it more accessible to patients in underserved areas.
* In 2025, an innovative urine test using AI to analyze tumor cell mRNA has shown great potential for early prostate cancer detection. With an impressive AUC accuracy score of 0.92, this test could play a key role in future national screening programs.
* In 2024, researchers introduced a non-invasive saliva test that detects genetic markers linked to prostate cancer.

**Market Attractiveness**

The image of market attractiveness provided further helps to get information about the region leading in the U.S. prostate cancer diagnostics market. We cover the major impacting factors driving the industry growth in the given region.

**Porter’s Five Forces**

The image provided would further help to get information about Porter's five forces framework providing a blueprint for understanding the behavior of competitors and a A close-up of hands holding a tablet and a pen

Description automatically generatedplayer's strategic positioning in the respective industry. Porter's five forces model can be used to assess the competitive landscape U.S. prostate cancer diagnostics market, gauge the attractiveness of a particular sector, and assess investment possibilities.

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