

U.S. Electronic Drug Delivery Devices Market Size, Share & Trends Analysis Report By Product (Smart Infusion Pumps, Smart Transdermal Patches), By Application (Diabetes, Oncology), And Segment Forecasts, 2025 - 2030

<https://marketpublishers.com/r/UD2C73508208EN.html>

Date: May 2025

Pages: 120

Price: US\$ 4,950.00 (Single User License)

ID: UD2C73508208EN

Abstracts

This report can be delivered to the clients within 2 Business Days

U.S. Electronic Drug Delivery Devices Market Growth & Trends

The U.S. electronic drug delivery devices market size is anticipated to reach USD 37.1 billion by 2030, growing at a CAGR of 7.5% during the forecast period, according to a new report by Grand View Research, Inc. The growing demand for managing chronic conditions like diabetes, cancer-related pain, neuropathic pain, and contraceptive needs has contributed to the rise of the Electronic Drug Delivery Devices (EDDD) industry. These devices provide a controlled method of drug administration that is both more convenient and less painful, while also reducing the risk of side effects. They help ensure that drug levels remain within a specific range, known as the therapeutic window, for optimal effectiveness. The National Cancer Institute forecasts that around 2,001,140 new cancer cases will be diagnosed in the U.S. in 2024. Among these, breast cancer remains the most frequently diagnosed type of cancer in women.

In 2024, an estimated 26.8 million Americans were affected by asthma, including 4.5 million children. This contributes to millions of emergency department visits annually, resulting in tens of billions of dollars in healthcare expenses. In addition, approximately 11.7 million people, or 4.6% of adults, have been diagnosed with chronic obstructive pulmonary disease (COPD).

Patients increasingly prefer managing their health conditions at home, so there is a growing demand for drug delivery devices that enable safe, effective, and easy at-home treatments. Devices such as insulin pumps, auto-injectors, wearable infusion pumps, and pre-filled syringes are becoming indispensable tools in home healthcare because they allow patients to self-administer medications with minimal assistance, offering convenience and autonomy.

U.S. Electronic Drug Delivery Devices Market Highlights

Based on product, the Implantable Drug Delivery Devices (IDDD) segment dominated the electronic drug delivery devices industry, accounting for the largest revenue share of 33.0% in 2024.

These devices enable daily and monthly drug delivery, reducing the need for frequent dosing and checkups, making them ideal for busy individuals.

The Smart Metered Dose Inhalers (SMDIs) segment is expected to grow at the fastest CAGR of 11.0% over the forecast period.

Based on application, the diabetes segment led the electronic drug delivery devices industry with the largest revenue share in 2024.

The oncology segment is estimated to grow at the largest CAGR over the forecast period.

The rising number of cancer cases fuels the growth as these devices offer a superior alternative to traditional injections, revolutionizing drug delivery by effectively improving the bioavailability and enabling precise targeting of therapeutic agents directly to cancerous tissues.

In April 2025, Abbott introduced a next-generation delivery system for its Proclaim DRG neurostimulation system. The system is expected to streamline the procedure for implanting a system in patients suffering from CRPS Type 1 and CRPS Type 2 of the lower extremities.

Companies Mentioned

Medtronic

BD

Insulet Corporation

Tandem Diabetes Care, Inc.

Eli Lilly and Company

Novo Nordisk A/S

Johnson & Johnson Services, Inc.

United Therapeutics Corporation

Abbott

AstraZeneca

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