

Primary categories of diabetes medications

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Description

Diabetes, a chronic metabolic disorder affecting millions worldwide, necessitates diligent management to prevent complications. Among the tools available to individuals with diabetes, medicines and supplies play a crucial role in maintaining blood sugar levels and ensuring overall well-being. This article delves into the various diabetes medicines and supplies, highlighting their importance, usage, and advancements. From insulin and oral medications to glucose meters and insulin pumps, understanding the array of options empowers individuals to make informed decisions about their diabetes management.

■ Diabetes medicines

Diabetes medicines encompass a broad range of treatments aimed at controlling blood glucose levels. The two primary categories of diabetes medications are insulin and oral medications. Insulin, a hormone produced by the pancreas, allows the body to utilize glucose for energy. For individuals with type 1 diabetes, who lack insulin production, exogenous insulin is crucial. Insulin can be administered through injections, insulin pens, or insulin pumps, offering flexibility in dosage and timing.

In addition to insulin, oral medications are available for individuals with type 2 diabetes. These medications work by improving insulin sensitivity, reducing glucose production by the liver, or enhancing glucose uptake by cells. Common oral medications include metformin,

sulfonylureas, thiazolidinediones, and dipeptidyl peptidase-4 inhibitors. The selection of the appropriate medication depends on various factors, such as the individual's medical history, lifestyle, and treatment goals.

■ Diabetes supplies

Alongside medications, diabetes supplies play a pivotal role in self-monitoring blood glucose levels and ensuring optimal diabetes management. Glucose meters are essential devices that measure blood sugar levels using a small blood sample. Advancements in technology have led to the development of Continuous Glucose Monitoring (CGM) systems, which provide real-time glucose readings and trends. These systems comprise a small sensor placed under the skin, transmitting data wirelessly to a receiver or smartphone app. CGMs offer valuable insights into glucose patterns, helping individuals make informed decisions regarding medication, diet, and physical activity.

Insulin pumps are another valuable tool for individuals with diabetes, particularly that requiring intensive insulin therapy. These devices deliver a continuous supply of insulin through a small catheter placed under the skin. Insulin pumps allow for precise dosage adjustments, mimicking the natural insulin secretion of a healthy pancreas. They offer convenience, flexibility, and tighter glucose control, reducing the risk of hypoglycemia and hyperglycemia.

Additionally, diabetes supplies include lancets for blood sampling, syringes for insulin injections,

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and pen needles for insulin pens. Proper disposal of sharps is crucial to prevent accidental needlesticks. Sharps containers should be used to safely discard used needles and lancets.

Advancements in technology have revolutionized diabetes management. Smart insulin pens, for example, incorporate digital features such as memory storage, dose calculators, and data connectivity. This enables individuals to track insulin doses, set reminders, and share data with healthcare providers. Similarly, advancements in insulin pump technology have led to the development of closed-loop systems, also known as artificial pancreas systems. These systems automate insulin delivery based on continuous glucose monitoring, reducing the burden of

constant decision-making and improving glucose control.

Diabetes medicines and supplies form the backbone of effective diabetes management. From insulin and oral medications to glucose meters and insulin pumps, the wide array of options available empowers individuals to tailor their treatment to their specific needs. The advancements in diabetes technology have provided individuals with valuable tools to monitor and control their blood glucose levels effectively. However, it is essential to consult healthcare professionals to determine the most suitable medicines and supplies, ensuring optimal diabetes management and improving overall quality.