Innovative technologies for managing and preventing diabetes

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Received: 02-Nov-2022, Manuscript No. FMDM-22-82853; **Editor assigned:** 04-Nov-2022, PreQC No. FMDM-22-82853 (PQ); **Reviewed:** 21-Nov-2022, QC No. FMDM-22-82853; **Revised:** 23-Nov-2022, Manuscript No. FMDM-22-82853 (R); **Published:** 30-Nov-2022, DOI: 10.37532/1758-1907.2022.12(S1).97-98

Description

Preventing complications from diabetes, such as issues with the eyes, kidneys, or nerves, as well as ensuring that those managing the disease do not have dangerously high or low blood sugar levels (hyperglycemia) are the main objectives of glucose management in diabetes.

Innovative technology has led to improvements in the treatment of diabetes over time. Various technologies are currently available that can assist in managing diabetes. The optimal glucose management solution will change as technology develops and depend on individual tastes. Which choice is best for person should be discussed with doctor and/or a diabetes educator. Understanding these differences may make the choices easier to fit for lifestyle.

Modern technologies are readily available and can significantly help regulate blood sugar. Numerous of these technologies are spreading in popularity and might be covered by person insurance. Ask medical team if these choices are the best ones for particular patient or person.

Blood sugar, commonly known as blood glucose, aids in supplying the body's cells with energy. Monitoring blood glucose levels is crucial for managing diabetes. Regular blood glucose checks and maintaining healthy blood sugar levels can help to avoid long-term issues like nerve damage as well as short-term issues like dangerously high or low blood sugar (hyperglycemia and hypoglycemia).

If person have diabetes, doctor may advise that incorporate daily blood glucose monitoring into that person regimen. Use a glucose metre to measure blood glucose levels. Blood glucose level will be determined by a glucose metre using a little drop of blood, sometimes known as a "fingerstick." In order to better manage or control diabetes, healthcare team can utilize the information from these readings to decide on eating habits, food portions, medication(s), and insulin. Knowing blood glucose trends will make it easier and doctor to comprehend how body responds to food, exercise, and medications.

The majority of diabetics will frequently check their blood glucose levels throughout the day. Various kinds of glucose metres are readily available. The recommended target level and how frequently persons with diabetes need to check their blood sugar vary from person to person. Make sure to discuss what is best for person with healthcare professional.

Diabetics can monitor their blood glucose levels with continuous glucose monitoring, or CGM. Throughout the day and night, CGM detects the amount of glucose in the medium circulating between bodily cells every few minutes.

The fluid between the bodily cells is tested using a small sensor by CGMs. Every few minutes, this sensor monitors the glucose level. The data is then wirelessly transmitted to a reader that displays the glucose levels. Some CGMs can even send this data directly to phone so person can provide it to a relative or a healthcare professional. There are numerous CGM systems on the market. The methods used to check and manage glucose levels vary slightly between systems.

• To detect the amount of glucose in body fluids, a tiny, disposable sensor is implanted beneath the skin. Depending on the model, the sensor is changed every 3 to 7 days.

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•The sensor is placed on the skin, and a small transmitter is attached to it. It transmits data about glucose levels through radio waves to a wireless monitor, also known as a receiver, which displays the data on a screen in a mobile phone-sized gadget.

•The monitor is kept in a user's pocket or worn on a belt. The monitor has an alarm that sounds when the target glucose level has been exceeded. Information can be seen on an insulin pump immediately in some devices.

Multiple types of reports about glucose levels are available from CGM systems. For instance, one report plots the typical glucose levels over a period of time, such as a full day and night. Additionally, CGM devices let users record when they take medications or eat meals, which can help understand their glucose trends.

Glucose levels can fluctuate abruptly or very quickly. A CGM device may be ideal for need to take insulin for type 1 or type 2 diabetes. Children as young as 2 years old may even wear CGMs, depending on the CGM. Studies have shown that CGMs can assist diabetics in maintaining target blood glucose levels without increasing their risk of severe hypoglycemia. Maintaining focus mean fewer health problems, day-to-day and in the long run.

CGM may not be for everyone, according to some people. They struggle to adjust to dealing with alarms and having a sensor under their skin. Some people could feel overwhelmed by the volume of information provided by CGM, or they might not feel at ease using technology.