

DIABETES

A close-up photograph of a person's hand holding a blue, rectangular insulin pump sensor. The sensor is attached to the side of the index finger. A thin, light blue tube extends from the sensor across the frame. The background is a soft, out-of-focus white.

The Future of Diabetes Management – What's on the Horizon?

Islet Cell Transplants

The American biotechnology firm SymbioCellTech (SCT) has made a major advance toward a functional cure of Type 1 diabetes. SCT has found a new way of importing insulin-producing cells to combat Type 1 diabetes in mice through a clinical trial. This technology transplants islet cells extracted from a donor into the liver and does not require anti-rejection drugs. SCT is preparing to begin human trials.

Artificial Pancreases

Fully closed loop pancreas systems are still being developed where no human input will be required to dose insulin. Today's most current insulin pumps are called 'hybrid' systems as although insulin is regulated adjusted based on blood glucose, the user still needs to dose for carbohydrate.

Applications and Smartphones

MySugr is one of the latest applications that engages people in that it adds a little bit of gamification to the traditional diabetes management applications. Apple is introducing a handful of new features for diabetes management as the Apple Watch gains the ability to connect directly to Bluetooth low power devices like those used for glucose monitoring.

Glucometers

- **Tattoos, contact lenses and sweat detectors** are new ways people with diabetes can keep in touch with their condition;
- **My Dario** is a glucose meter that connects directly to your smartphone and logs and tracks your sugar levels;
- **Freestyle Libre** is a smart glucose meter that makes glucose measuring an easy, pain-free experience through a sensor applied on the arm and a glucose meter that simply scans the sensor and gives results instantly. Levels can be measured anywhere, at any time!

Technology Eco System

Alphabet, Google's parent company recently invested \$300 million into diabetes research and Amazon is holding a contest with hundreds of dollars in prizes to see who can build the best diabetes application for Alexa.

Food Scanners

Canadian TellSpec announced its aim is to develop a hand-held food scanner that will be able to tell how many grams of sugar a piece of fruit contain and inform users about specific ingredients and macronutrients.

Hippocrates quoted, "Our food should be our medicine and our medicine should be our food." This is true whether or not you have diabetes.

For people with diabetes, it is important to partner with your provider, a diabetes educator or other healthcare provider with diabetes expertise on a frequent and regular basis. This is how real and positive changes in food choices, eating habits, weight and diabetes care happen.



#GIVINGTUESDAY

Black Friday. Cyber Monday. #GIVINGTUESDAY.

Please join us on **Tuesday November 28** for #GIVINGTUESDAY, a global day of giving fueled by the power of electronic communication, social media and collaboration.

#GIVINGTUESDAY started in 2012 as a movement to celebrate and support giving and philanthropy. Last year, organizations in 98 countries came together to celebrate #GIVINGTUESDAY and raised \$177 million. Please join Concord Hospital as we participate in #GIVINGTUESDAY.

Concord Hospital Trust's
Business Partners in Health initiative
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for Health Promotion and Concord Hospital Occupational Health Services.

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