

## **MEDICAL BREAKTHROUGHS** **RESEARCH SUMMARY**

TOPIC: WISDM TRIAL: TESTING TECH TO HELP OLDER DIABETICS  
REPORT: MB #4855

**BACKGROUND:** Type 1 diabetes is a chronic disease in which cells in the pancreas that make insulin are destroyed. Insulin is a hormone that helps the body's cells use glucose for energy. The body gets glucose from the foods we eat, and insulin is what allows the glucose to pass from the blood into the body's cells. When the cells have enough glucose, the liver and muscle tissues store what is leftover, also called blood sugar, in the form of glycogen. That is broken down into blood sugar and released when you need energy between meals, during exercise, or while you sleep. In Type 1 diabetes, the body is unable to process glucose, due to the lack of insulin. Glucose from your food can't make its way into the cells. This leaves too much glucose circulating in your blood.

(Source: <https://www.healthline.com/health/type-1-diabetes-causes-symptoms-treatments>)

**AGING WITH DIABETES:** There is strong evidence that each generation of people with Type 1 diabetes is living, on average, longer than the last. In the 21st century, there are better diabetes treatment options that have continued to add months to the average life expectancy for people across the U.S., according to Nick Argento, MD, an endocrinologist, and diabetes researcher with Johns Hopkins Medicine. "What you see in basically just a generation is an explosion in the number of people who are 50-year medalist survivors," says Argento, who also lives with Type 1 diabetes himself. Being proactive on medical issues is highly important. According to a *Diabetes Spectrum* overview of research on aging and Type 1 diabetes, long-standing diabetes is often associated with increased risks of severe hypoglycemia, micro and macrovascular complications, cognitive decline, and physical disabilities. "One thing that I coach patients of all ages on is to have what I call a backstop plan, sort of a minimum level of acceptable self-care," says Alicia Downs, a diabetes care and education specialist (DCES) and director of Patient Care and Education Services at Pennsylvania-based Integrated Diabetes Services, who also lives with Type 1 diabetes.

(Source: <https://www.healthline.com/diabetesmine/aging-with-type-1-diabetes#Increasing-life-expectancy>)

**NEW RESEARCH FOR OLDER PATIENTS:** Results from a multi-site clinical trial called the Wireless Innovation for Seniors with Diabetes Mellitus (WISDM) Study Group states that older adults with Type 1 diabetes are prone to hypoglycemia, particularly when diabetes is longstanding. The objective was to determine if the use of continuous glucose monitors (CGM) could reduce hypoglycemia among the older adults. The study was a randomized, controlled trial involving 203 men and women over the age of 60 at 22 sites, including UNC-Chapel Hill. Half of participants were randomly assigned to a group using a Dexcom CGM device, and the other half to a control group using the standard finger-stick method with test strips. The study found the amount of time glucose levels were in a hypoglycemia range was reduced from 73 minutes per day to 39 minutes per day in the group using CGM over the six-month period. The people in the control group averaged 68 minutes per day compared to 70 minutes per day at the end of the six-month period. These results are important because they demonstrate CGM can be used effectively in an older adult population to reduce hypoglycemia, as well as improve overall glucose control.

(Source: <https://news.unchealthcare.org/2020/06/continuous-glucose-monitoring-reduces-hypoglycemia-in-older-adults-with-type-1-diabetes/>)

**FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:**

DAVID BREEN

[DAVID.BREEN@ADVENTHEALTH.COM](mailto:DAVID.BREEN@ADVENTHEALTH.COM)

**If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at [mthomas@ivanhoe.com](mailto:mthomas@ivanhoe.com)**