

BROADCAST-

Being a person with diabetes is hard enough, but imagine the challenges if the disease left you blind. Diabetes Educator Tina Canada of OSF HealthCare Holy Family Medical Center in Monmouth went above and beyond by creating a make-shift version of a “Braille” type report so her patient could see by feeling that his blood sugars were mostly within range, reassuring him he had his disease under control.

While on a trip in Kansas City, 47 year-old Jason Huston of Keithsburg, Illinois experienced what he described as an experience that felt like a squid expelling ink in his right eye. He managed to drive home, saw an eye doctor and learned he had [advanced diabetic retinopathy](#), a swelling of blood vessels in the retina caused by chronically high blood sugar. Within two months, he could no longer drive so he lost his livelihood. Since then, Huston says, “I’ve been trying to find my way in the world.”

Huston admits he didn’t take his diabetes seriously.

SOT-Jason Huston, patient with diabetes who went blind

“I felt like I was the one. It ain’t gonna get me,” he said wearing dark sunglasses in the Diabetes Education Room at OSF HealthCare Holy Family Medical Center in Monmouth. “You always hear about somebody else well I’m the somebody else. I’m blind now. My kidneys are functioning at 37% now.” (:12)

Canada says Huston’s Medicaid coverage doesn’t cover a continuous glucose monitor (CGM) that alerts patients when their blood sugar is too high or too low before it becomes critical. To help reassure Huston, Canada was able to get a professional meter for limited use.

When she told Huston his readings were mostly in the target range, he was skeptical and worried. So, Canada realized what is true for her other patients -- seeing is believing.

SOT- Diabetes Education Coordinator Tina Canada

“I have found so many people when they have a continuous glucose monitor and they’re able to see how their sugars respond to exercise or to particular foods, it really clicks in their mind. It’s like ‘I can see it now,’ so I think being able to see and even if it’s a tactile way to see, then it’s something you really believe because you can touch it, you can feel it, you can see it,” she said referring to what she calls a low-tech equivalent of a [“Braille”](#) report from his CGM. (:25)

Canada glued embroidery floss to the graph of his blood glucose line and used ribbon to mark the target range

SOT-Diabetes Education Coordinator Tina Canada

“So on this one over here, you can feel underneath where he’s in the target range, he comes up above the target range, and again back in target range,” she said while running her finger along the tactile graph. (:09)

Realizing how easy it was to create and what a big impact it had on Huston's confidence, Canada recently shared her innovative, low-tech approach in a poster presentation at a recent national meeting of the American Association of Diabetes Educators.

Right now, without a CFM connected to his insulin pump, Jason knows the sequence to manually administer insulin for food eaten but it can be difficult to navigate while blind. He would relish a continuous monitor.

SOT-Jason Huston, patient with diabetes who went blind

“Now, I could do it every hour. You could do it more often and adjust it and let it go versus just doing it two, three, four times a day,” he said. (:10)

Even more helpful, would be a wirelessly connected CGM system that also could verbally tell him his blood sugar level so he could be reassured his disease is under control.

Huston lost his mom, his dad, and his brother to heart disease and he's now divorced. His main support comes from a personal assistant who helps him three hours a day. He has bouts of depression and Huston admits he doesn't want to venture out without a personal assistant because he's afraid of failure. Canada has tried to be encouraging and she's sympathetic.

SOT-Diabetes Education Coordinator Tina Canada

“Using our public transportation, the Warren (County) Achievement Van, there's no one there to help you on and off even if you have a disability so actually he fell a couple of times by not realizing they were at the curb so it's made him very self-conscious about using the van.” (:20)

Canada has supplied Huston with smart-phone apps such as [Be My Eyes](#) which has volunteers who through live video connection help navigate new spaces, read expiration dates, instructions, or, whatever challenges can be solved through video support. Always the optimist, Canada would like to get Huston to attend a support group she hosts for people with diabetes. She knows social isolation is contributing to his sometimes negative outlook. But Huston is reluctant, fearing any positive experience from being a part of the group will be fleeting.

However, Huston was recently connected with an independent living advocate at the [Stone-Hayes Center for Independent Living](#), a non-residential non-profit that empowers people with disabilities to improve their lives and live on their own. Canada hopes his advocate there can add to the support she's limited in providing as a diabetes educator.

For website

Common symptoms of diabetes:

- Urinating often.
- Feeling very thirsty.
- Feeling very hungry—even though you are eating.
- Extreme fatigue.

- Blurry vision.
- Cuts/bruises that are slow to heal.
- Weight loss—even though you are eating more (type 1)
- Tingling, pain, or numbness in the hands/feet (type 2)

See a medical professional if you are experiencing symptoms to get a proper diagnosis.