

Why Young Adults With Type 1 Diabetes Don't Use CGMs or Insulin Pumps

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Sysy Morales

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A recent [study](#) found that many young adults with type 1 diabetes avoid wearing CGMs and insulin pumps because of the device attachment to their person and their attitudes associated with wearing those devices.

Researchers have known that the use of insulin pump and CGMs (continuous glucose monitors) has continued to be relatively low despite their positive clinical results in those with type 1 diabetes.

In order to identify the “barriers” between these wearable devices and adult patients with type 1 diabetes researchers surveyed 1,503 adult T1D Exchange participants. These participants had a mean age of 35 and a mean diabetes diagnosis duration of 12 years.

They sought to look at the barriers to the use of these devices and to understand the characteristics of a person who uses these devices versus the characteristics of those who don't as well as looking at differences regarding age and gender. Researchers also hoped to find out what barriers exist which keep people from using these devices and what their reasons for discontinuing may be.

In their study abstract the researchers wrote, “Scales used were the Diabetes Distress Scale, technology use attitudes (general and diabetes-specific), and barriers to device use and reasons for discontinuing devices.”

Why Do Some Avoid CGMs and Insulin Pumps?

So not counting those who don't use these devices due to barriers like financial restrictions, the researchers found that the most common *modifiable* barriers had to do with the hassle of wearing a device and the dislike regarding having to wear the device on one's body.

They found that CGM users did happen to be older than nonusers (mean 38 vs. 33.5 years), had diabetes for more time (23 vs. 19 years), and had a more favorable attitude towards technology than nonusers (3 vs 4).

The study found that the younger adults, those between 18 and 25 years had the lowest CGM and insulin pump uptake, the highest diabetes distress, and the highest A1c levels.

The researchers concluded that in younger adults, “Efforts to increase device use need to target physical barriers to wearing devices.” Not only are young adults less likely to use wearable diabetes technology, they may also have the most to gain from these devices.

Why is Use So Low in Young Adults?

Data from the [JDRF's CGM Study Group](#) which compared standard blood sugar monitoring with the use of a CGM sheds some light on the normal difficulty of the adolescent and young adult stages in patients with type 1 diabetes.



In this trial, 322 participants of all ages were given either CGM equipment or regular glucose monitoring tools for 26 weeks. In participants over the age of 25, there were great A1c improvements observed without any increase in low blood sugar episodes. There was a modest improvement in A1c in the 8-14 year-old age group but no improvement in the group comprised of 15-24 year-olds. Another 6-month study revealed similar results.

It turns out that teens and young adults in the 6-month study between ages 15-24 adhered least to sensor use with only 30 percent of them using the technology 6 days or more per week compared with 86 percent of patients over 25 and 50% of patients between 8-14 doing so.

There are various [psychosocial factors](#) involved in the challenges faced by young adults with type 1 diabetes pointed out by doctors at the Department of Biobehavioral Health Science at the University of Illinois at Chicago. These factors include:

- Differences between pediatric and adult care
- Poor blood sugar management and other risk factors
- Loss to follow-up
- Increased risk for acute complications
- Sexual and reproductive health issues/concerns
- Alcohol, smoking, and drug abuse
- Emergence of signs of chronic diabetes complications

Researchers recommend that investigations continue in order to find out how to best support young adults with type 1 diabetes through their tough transition from adolescence and into the early years of adulthood.

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