

Initiating Fear of Hypoglycemia Screening and Education

Jeniece Ilkowitz, RN, MA, CDCES, Aashna Shah, BA, Becky Lois, PhD, Philip Burns, MD, Mary Pat Gallagher, MD
Hassenfeld Children's Hospital at NYU Langone Health, Pediatric Diabetes Center



INTRODUCTION

A Fear of Hypoglycemia (FoH) can impact diabetes self-management behaviors, which in turn can have a negative impact on HbA1c and glucose variability. Some level of worry regarding hypoglycemia can be appropriate; however, at high levels it is associated with anxiety, diabetes distress, and a reduced quality of life. The Hassenfeld Children's Hospital at NYU Langone Health, Pediatric Diabetes Center (PDC), has previously described a prevalence of a FoH in some of the families living with type 1 diabetes (T1D) seen at the PDC. For this Quality Improvement (QI) project it was noted there was a lack of proactive FoH screening and education for all youth living with T1D and their families.

Therefore, the aim of this QI effort was to initiate FoH screening and education for families living with T1D, with a goal of documenting FoH screening in at least 30 families over three months.

METHOD

In March 2025, QI efforts began. A workgroup was created which included a fellow from the department of psychiatry, the PDC QI and research team, the director of the PDC, psychologists and a diabetes educator. FoH screener was identified and permission to use the survey was granted. An educational handout about FoH management was created (Figure 1) and reviewed by the PDC family advisory committee who suggested edits and to create different materials for adolescents and young adults (AYA). FoH screening of families living with T1D began in May 2025 via paper and online surveys along with education. Family feedback and administration are ongoing.

Figure 1 Recognizing Feelings Around Low Glucose Levels (Hypoglycemia)

What is a Fear of Hypoglycemia?

It is normal to feel worried about experiencing a low. Some people experience worries that are hard to stop and get in the way of doing other things. These worries might lead them to keep glucose levels high or to check their glucose levels more often than needed.

Many families tell us that their fear of lows makes it hard to separate from their child, sleep, go to school and work, or enjoy life with less worry. Your diabetes team is here to help you.

Practical Strategies to Manage a Fear of Lows

1. Have a Safety Plan

- Keep fast-acting carbohydrates (like glucose tabs, candy or juice) in multiple locations (bedroom, school, car, backpack, etc.)
- Ensure that others (teachers, friends, caregivers, etc.) know how to recognize and manage a low
- Review glucagon use, location, and expiration yearly
- Give your child a role that is developmentally appropriate. This might be alerting an adult, or if your child is older, they may be able to participate in treating their lows more independently

2. Redefine the Fear

- Avoiding insulin or keeping glucose levels high isn't a healthy solution and can actually increase anxiety. Focusing on what you can control, like being prepared for lows, can help decrease anxiety
- Try "positive self-talk" to cope with your worries. Instead of, "Lows are dangerous" say "We have a plan to treat lows and can treat it quickly"

3. Build Confidence

- Include your child in diabetes self-management from an early age in a developmentally-appropriate way
- Help your child recognize early signs of lows and how to respond. This may look different for younger kids than in teens/young adults
- Introduce the safety plan and coping strategies at all activities (gym class, sports practice, field trips, etc.)

4. Get Support

- If your worries about low glucose levels are getting in the way and really distressing you or your family, please let us know. Our team is here to support you

Fear of lows is understandable, but with the right strategies, it can be easier to manage and you can have greater peace of mind. For more resources, talk to your diabetes care team.

RESULTS

FoH screening and educational materials were provided to 31 PDC families (six in May, 15 in June, and ten in July). Two educational handouts, one parent and one AYA focused, were created and provided to families along with the FoH assessment. These handouts were created following multiple plan-do-study-act cycles.

CONCLUSIONS

This QI effort successfully initiated FoH screening of families living with T1D at the PDC. Education regarding FoH using age specific handouts also began. Ongoing QI initiatives include increasing administration of the FoH and assessing feasibility of and administration of the FoH survey via the Electronic Medical Record (EMR). Currently this survey is provided via paper or RedCap, a HIPAA compliant online survey tool. We hope to automatically assign it via the EMR. Additionally, the PDC team wants to assess the impact of the educational handouts by reviewing FoH rescreens. If additional interventions are required, additional QI initiatives could be initiated to further reduce FoH. Lastly, we plan to learn more about if there is an impact of FoH on clinical outcomes in an IRB approved protocol.