



Hypoglycemia Unawareness

😊 Children with Diabetes®

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Written and clinically reviewed by Marissa Town, RN, BSN, CDCES

Diabetes experts believe that around 25% of people living with type 1 diabetes have impaired awareness of hypoglycemia, or hypoglycemia unawareness.¹ Given that there are very real acute risks of having hypoglycemia, being able to recognize when your blood sugar is either low or dropping can be lifesaving.

In 2021, researchers in the Netherlands conducted a study on 509 people with type 1 diabetes over a three-year period to see if C-peptide levels and other variables are related to having hypoglycemic unawareness.² Previous studies that have shown that C-peptide was protective against severe hypoglycemia, but C-peptide had not yet been studied related to impaired hypoglycemic awareness.

Out of the 509 participants in the study, 75 showed signs of impaired hypoglycemia awareness, which is a 15% prevalence in this study population. The participants were more likely to have hypoglycemic unawareness with longer diabetes duration, older age, higher body mass index, presence of microvascular complications, and older age at diabetes diagnosis.²

Participants who had higher residual C-peptide levels were less likely to experience impaired awareness of hypoglycemia, demonstrating another area in which C-peptide seems to be protective for people with diabetes. Higher levels of C-peptide have been shown to be protective against severe low blood glucose levels, hypo-unawareness as shown in this study, as well as being protective against diabetes complications.³

It's important for people who are unable to feel their lows to do their best to avoid hypoglycemia as well as keeping their HbA1c close to target to reduce the risk of diabetes complications. Diabetes technologies can also be helpful with managing hypoglycemic unawareness. Continuous glucose monitors and automated insulin delivery systems are tools that can help people get alerts when their blood sugars are going low and help increase the time in range.

The researchers from the study in the Netherlands also discuss the role that fear of hypoglycemia plays into unawareness. They suggest that due to the inability to feel low blood sugars, the person with diabetes may be increasing snacking and decreasing exercise to avoid lows, thus increasing their BMI. It can be difficult to navigate anxieties around blood sugars, low and high, but utilizing the tools that work best for you and working to attain your diabetes self-management goals can help.

So, for those of you who may still have residual C-peptide, congratulations on your luck!

References:

1. [Hypoglycemia unawareness and autonomic dysfunction in diabetes: Lessons learned and roles of diabetes technologies](https://pubmed.ncbi.nlm.nih.gov/32403204/) <https://pubmed.ncbi.nlm.nih.gov/32403204/>
2. [Residual C-peptide secretion and hypoglycemia awareness in people with type 1 diabetes](https://pubmed.ncbi.nlm.nih.gov/34526306/) <https://pubmed.ncbi.nlm.nih.gov/34526306/>
3. [Low levels of C-peptide have clinical significance for established Type 1 diabetes](https://pubmed.ncbi.nlm.nih.gov/26172028/) <https://pubmed.ncbi.nlm.nih.gov/26172028/>

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