

CONTINUOUS GLUCOSE MONITORING IN HYPERINSULINISM

Continuous glucose monitoring (CGM) is a tool approved for diabetes management in kids 2 years and older. Though not on-label, there have been some studies using CGM (Dexcom G6® and G7®) in non-diabetes conditions with glucose fluctuation, including hyperinsulinism.¹ It can be a valuable tool in the management and diagnosis of these conditions.

CGM provides real-time continuous glucose monitoring. It consists of a transmitter and a sensor, as well as a receiver. The receiver can be a handheld device or a phone. CGM measures glucose in the interstitial fluid under the skin, rather than in the blood. It displays and updates a glucose value every 5 minutes. Because a standard glucose meter and a sensor are reading different body fluids, we do not expect a glucose level from a fingerpoke and a sensor reading to be the same.

CGM can assist in identifying glucose trends and patterns. CGM can show what the glucose was in the past and what it is now, and it can predict what direction it is heading with the use of graphs and trend arrows.

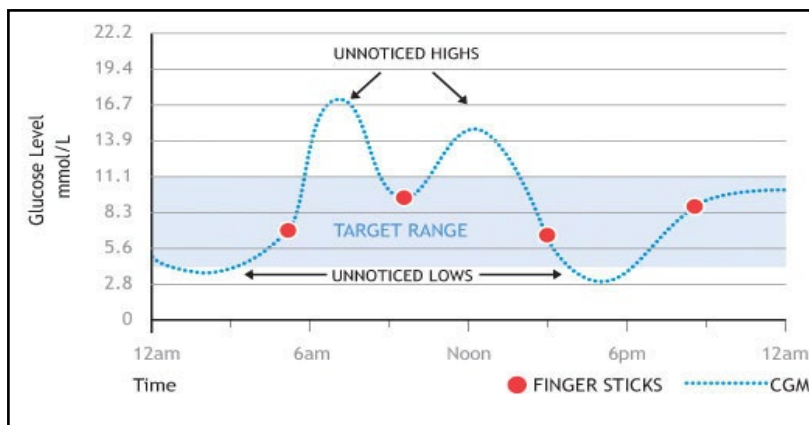


Figure 1 (courtesy of Animas.ca)



Blood glucose monitoring with a meter provides the blood glucose reading at exactly the moment it is checked. CGM provides more information. It can “fill in the blanks” of what is happening between meals and how the body reacts to food, medication, and activity.

CGM has two main types of benefits: first, to catch the highs and lows before they happen; and second, to make changes to treatment based on historical patterns.

¹Frontiers in Endocrinology July 2022. Auckburrally S et al. Families' Experiences of Continuous Glucose Monitoring in the Management of Congenital Hyperinsulinism: A Thematic Analysis.