

Using CGMs to Track Glycemia

Information for Prospective Practitioners



Society of Metabolic Health Practitioners

Populations that could benefit from a Continuous Glucose Monitor (CGM)

Population	Why
At risk of developing T2DM	Due to immediate glycemic feedback, CGMs can show which foods cause glucose spikes and baseline elevations that would eventually raise HbA1c. This can include people with prediabetes, hypertriglyceridemia, HTN, obesity, NAFLD or insulin resistance.
Patients with T1DM or T2DM	CGMs are an alternative to finger sticks, thus greatly decreasing the pain of checking blood glucose. They also may detect hypoglycemia quicker than finger sticks.
Glucose response to nutrition	CGMs provide immediate feedback on how food affects glycemia, and this feedback empowers patients to reduce carbohydrates based on how they affect blood glucose.
Changing exercise routines	Patients can get real time feedback on glycemic improvements from exercise. This includes the different glucose responses from postprandial walking to HIIT.

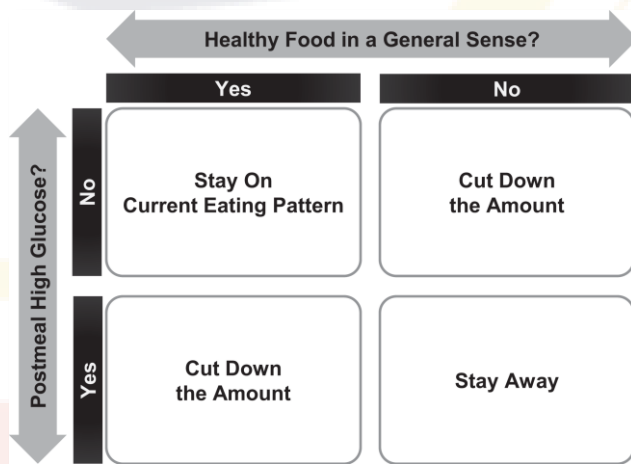
What are the benefits?

In the following studies, subjects with T2DM were given CGMs and instructed to minimize glycemic excursions based on CGM readings. A simple patient-driven algorithm was used to reduce foods that caused excursions. The benefits are the same or superior to effects seen from medications.

Study	A1c	Weight	BP (mmHg)	Deprescribing
Oser et al., 2022	↓ 7.7% to 6.7% (-1.0%)	↓ 114kg to 102 kg (-12kg)	↓ 131/81 to 126/78 (-6/3)	↓ Insulin dose 81% ↓ 30% DM meds
Choe et al., 2022	↓ 6.9% to 6.0% (-0.9%)	↓ 98kg to 89kg (-8.8kg)	↓ 144/85 to 135/79 (-9/6)	13% stopped at least 1 medication

How to use a CGM effectively

CGMs empower patients with knowledge and feedback to improve their metabolic health. Choe et al. solely used the SEOUL algorithm (right) to improve metabolic health. Subjects noted their glycemic response to food and decreased the intake of that food if it caused a glycemic excursion. This was without counting carbohydrates. Patients can scan the sensor as often as they'd like, typically every 5-15 minutes after eating a food to examine how it affects their glycemia. Clinicians can download reports from an online portal to discuss with patients in clinic.



Besides food, what factors can increase or decrease blood glucose?

- Alcohol intake (↓)
- Exercise (↓ or ↑ acutely then ↓)
- Stress (↑, mental, emotional, physical)
- Pain (↑)
- Medications (↓ or ↑, both Rx and OTC)
- Showers/Sauna (generally ↑)
- Lack of sleep (↑)
- Sleeping directly on the glucose sensor (↓, compression hypoglycemia)
- Viral infections (↑)