Addressing Patient Barriers to **Continuous Glucose Monitor Use**



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Patients using continuous glucose monitors (CGMs) may face challenges that lead to distrust, frustration, and eventual device discontinuation.1-3 Prescribers can help by explaining the benefits of CGM, setting clear expectations, and providing detailed instructions about features like alarm thresholds and trend arrows. Initial CGM training for all patients, especially those with low health literacy or from under-resourced populations, should be provided by a diabetes self-management education and support (DSMES) specialist or a trained health care team member.4 The tables below outline practical strategies to address common barriers and improve patient confidence with CGM technology.

Table 1. Strategies to Overcome Barriers to CGM Use: Placement, Adhesion and Skin Irritation¹⁻³

Barriers	Strategies	Other Considerations
Poor Device Adhesion (negatively impacts comfort and accuracy and increases risk for detachment)	Avoid sites where the skin can crease (e.g., joints or at the waistline), rotate sites	Follow manufacturer guidelines
	Wear comfortable, loose clothes, avoid tight bands	Be mindful during activities, wear breathable fabrics
	Cleanse skin with oil-free soaps, dry thoroughly, shave excess hair, use alcohol to remove excess oils	Avoid lotions, make sure skin is dry before applying sensor
	Use liquid adhesive (e.g., Mastisol) on edges of adhesive, dry	May require adhesive remover after use
	Use an overlay (device-specific products or cut to fit) or additional tape to provide extra security and extend wear	Use the "picture frame" method by applying tape along all four edges of the sensor adhesive
Irritation Cavilon), dry Avoid rubbing alcohol if irritation of dry before applying sensor, use ba	Use a barrier wipe/spray (e.g., Skin Tac, IV PREP, Cavilon), dry	Test sites first, avoid use over CGM insertion point
	Avoid rubbing alcohol if irritation occurs, let skin dry before applying sensor, use barrier wipes or hydrocolloid bandages under the sensor, apply nasal steroid spray (off label)	For severe or persistent allergy, switch to another manufacturer

Refer patients to resources at Panther Skin Solutions pantherprogram.org/skin-solutions

Table 2. Strategies to Overcome Barriers to CGM Use: Patients With Disabilities⁵

Disability	Strategies	Other Considerations
Visual Impairment	Consider device with large displays, TalkBack or VoiceOver technology, or vibration alerts; converts visual data to audio, uses voice commands to interact	CGMs lack audio technology; smart devices facilitate use
Physical Impairment (manual dexterity)	Consider device with extended wear-time and all-in- one sensor/transmitter; connect to smartphone or home device; enable voice commands for hands-free use	Sensor needs to be inserted by caregiver or health care provider
Cognitive Impairment	Use "Share" function to share data via app; use alerts to prompt treatment of high/low glucose	Caregiver training is required

For more information, access Cardi-OH's expanded resource on glucose monitoring.

- $American \ Diabetes \ Association \ Professional \ Practice \ Committee. \ 7. \ Diabetes \ Technology: \ Standards \ of \ Care \ in \ Diabetes \ -2025. \ Diabetes \ Care. \ 2025; 48 \ (Supplement_1): S146-S166. \ doi.org/10.2337/dc25-S007.$
- Natale P, Chen S, Chow CK, et al. Patient experiences of continuous glucose monitoring and sensor-augmented insulin pump therapy for diabetes: a systematic review of qualitative studies. J Diabetes. 2023;15(12):1048-1069. doi:10.1111/1753-0407.13454.
- Diabetes Research in Children (DirecNet) Study Group, Englert K, Ruedy K, et al. Skin and adhesive issues with continuous glucose monitors: a sticky situation. J Diabetes Sci Technol. 2014;8(4):745-751. doi:10.1177/1932296814529893.
- Vrany EA, Hill-Briggs F, Ephraim PL, et al. (2023). Continuous glucose monitors and virtual care in high-risk, racial and ethnic minori populations: toward promoting health equity. Front Endocrinol (Lausanne). 2023;14:1083145. doi:10.3389/fendo.2023.1083145. Alshatti A, Bishop K, Overcoming barriers to technology in special groups. Pract Diab, 2023;40(5):35-39a. doi:10.1002/pdi.2478.

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