A Practical Approach to Prescribing CGM Technologies for Type 2 Diabetes

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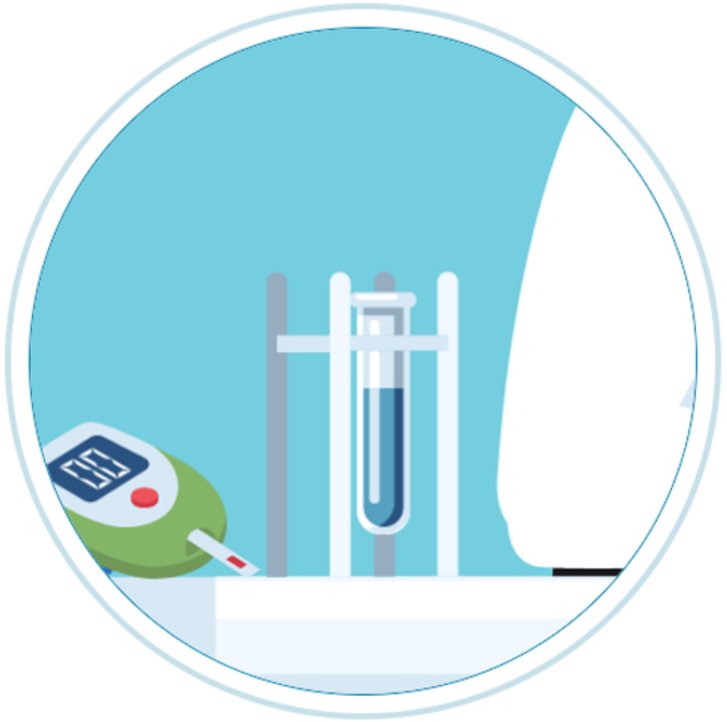

A1C and CGM use

Real-time continuous glucose monitoring (CGM) devices have been found to reduce hemoglobin A1C levels and the frequency of hypoglycemia in patients with insulin-treated diabetes. These benefits are most significant when the CGM device is used consistently over time.[1]

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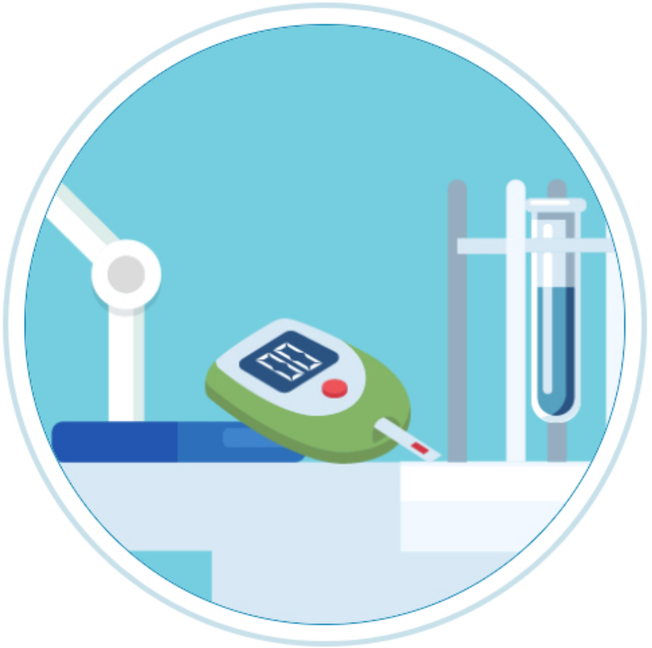
Detailed information on glucose levels

CGM can reduce or eliminate the need for fingerstick blood glucose testing and can provide more detailed information about average glucose levels as well as glucose trends during fasting, exercise, and after meals, both of which can identify the reason for and alert the patient to episodes of impending or actual hypoglycemia.[2]



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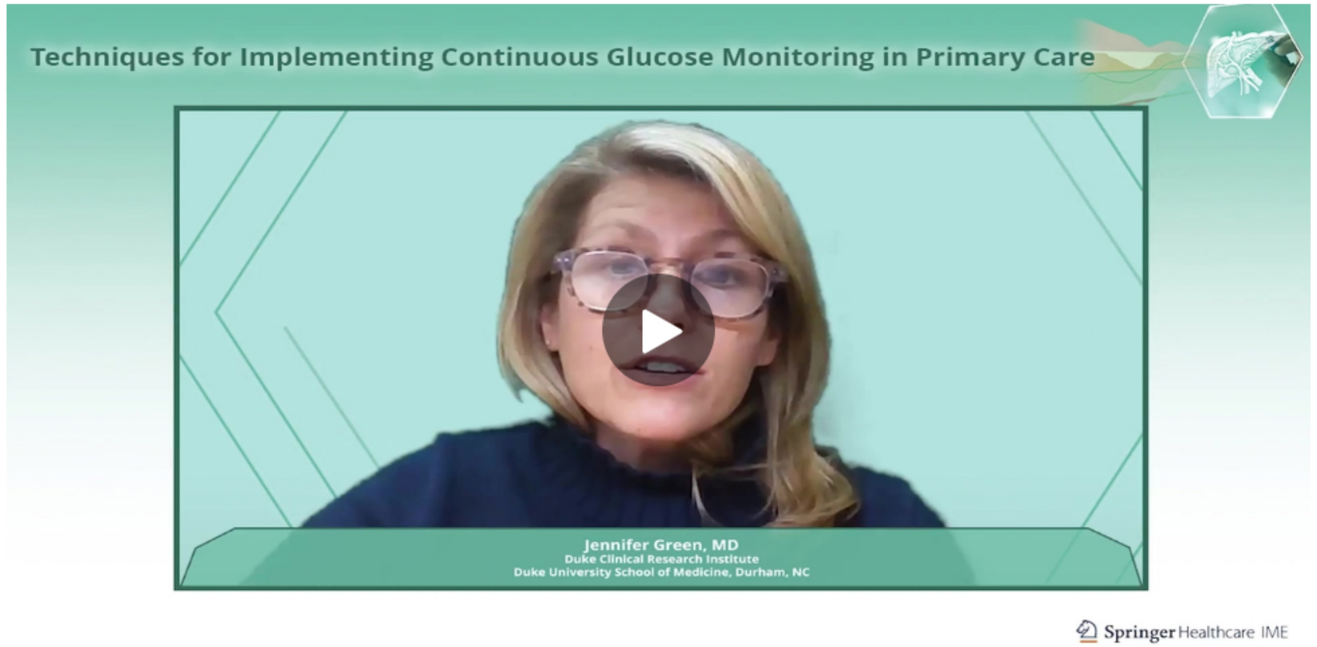
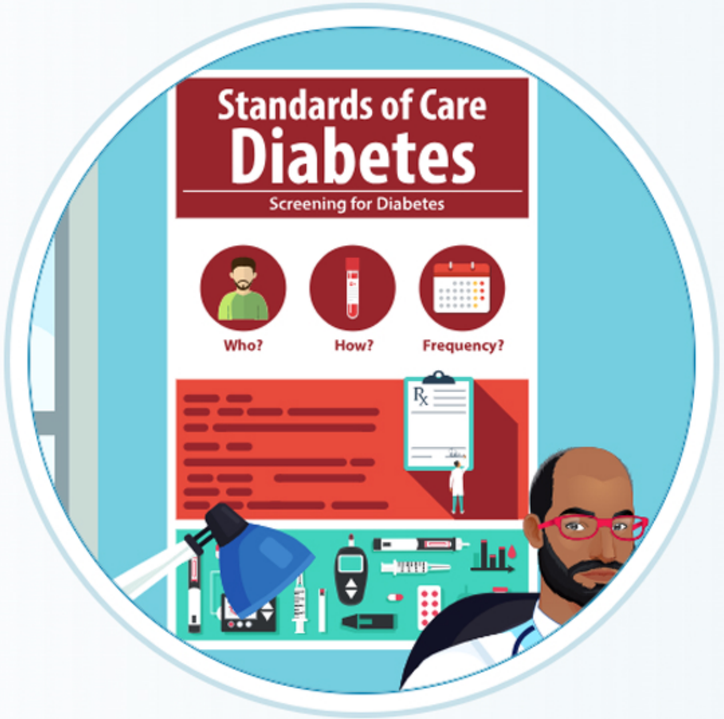
PCPs and CGM [2-4]

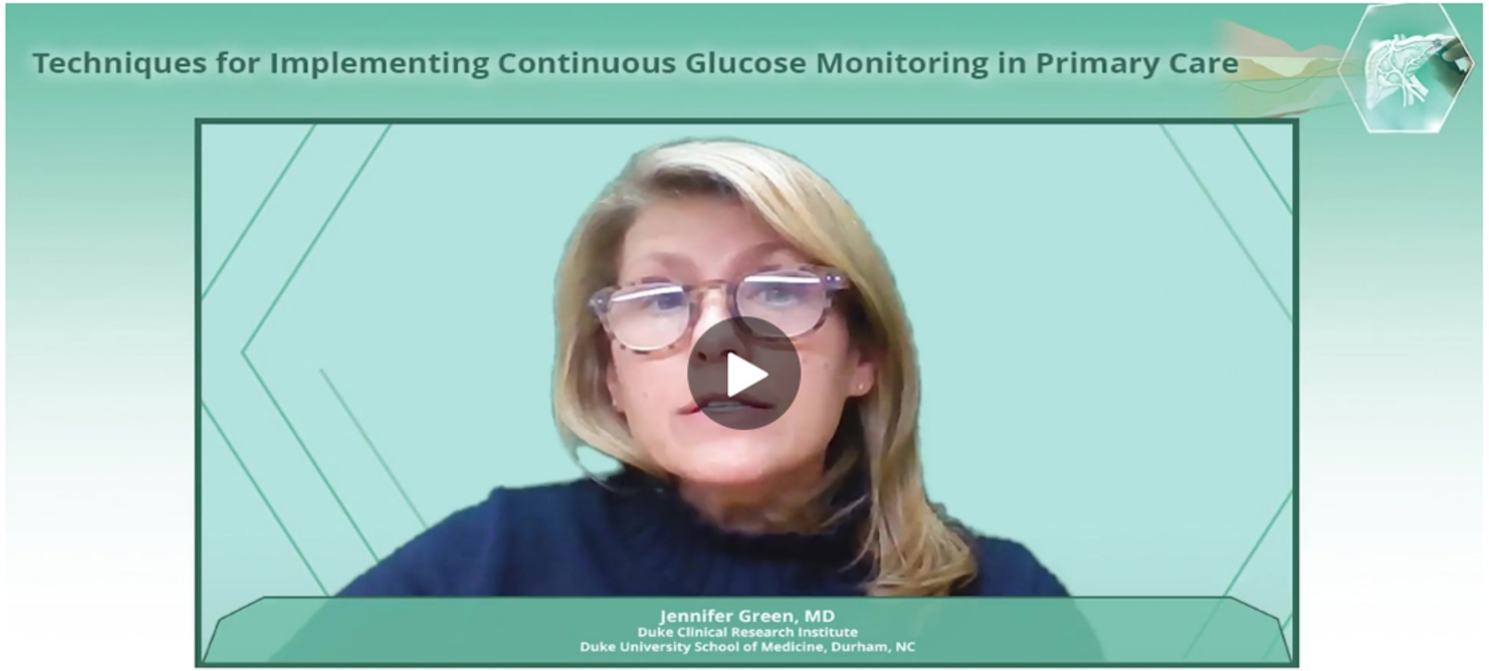




Guideline recommendations

The American Diabetes Association (ADA) recommends that CGM should be offered to adults with diabetes who are using basal insulin or multiple daily insulin injections for diabetes management.[1,5]

Insurance coverage [6]



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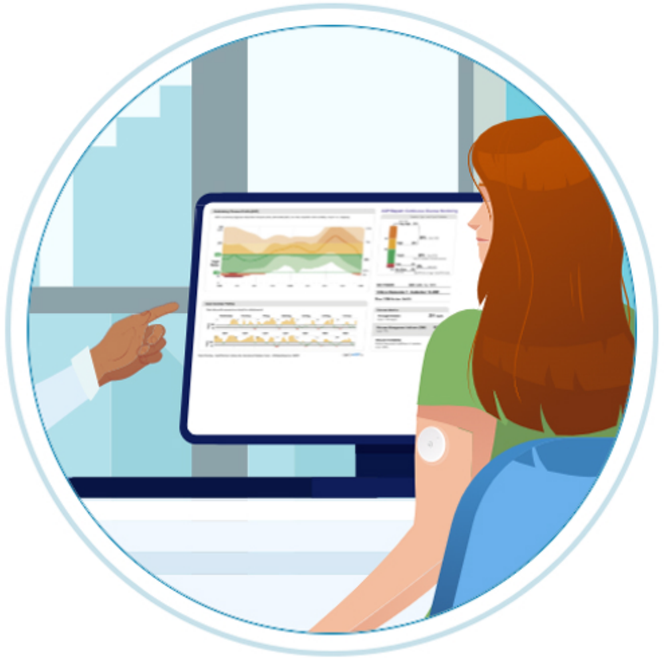
Device selection

Selection of the type of CGM device should be individualized based on the needs, preferences, and skill level of the person with diabetes, and/or their caregiver.[1]

Online tools to help with decision-making, such as DiabetesWisePro or the ADA, offer information and resources for healthcare providers when choosing CGM devices.[7,8]



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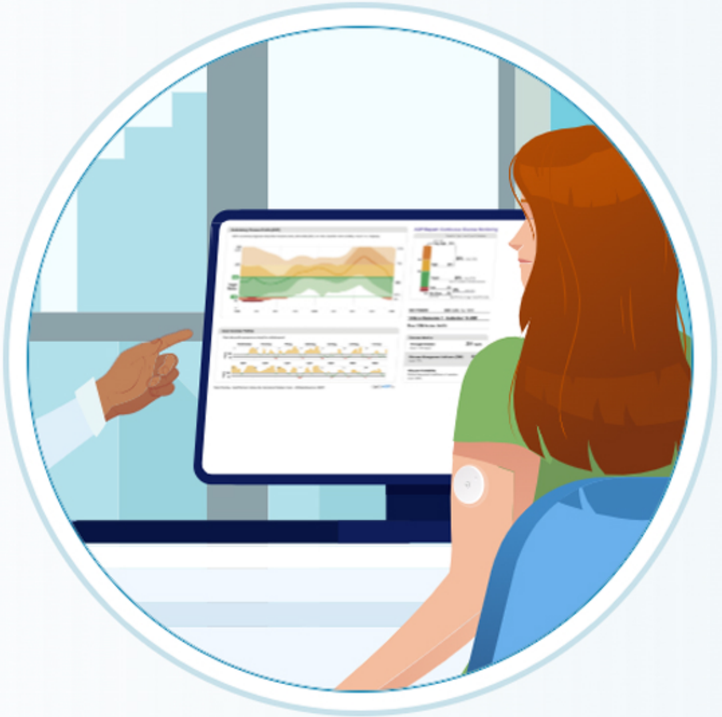
Comparison of CGM Features[7-9]							
Device name	**Abbott Freestyle Libre 2**	**Abbott Freestyle Libre 3**	**Abbott Freestyle Libre 14-Day**	**Dexcom G6**	**Dexcom G7**	**Medtronic Guardian**	**Senseonics Eversense**
Frequency of glucose readings	Measures glucose every minute; records glucose level every 15 minutes	Measures glucose every minute; records glucose level every 5 minutes	Measures glucose every minute; records glucose level every 15 minutes	Glucose readings sent to receiver/smart device every 5minutes	Glucose readings sent to receiver/smart device every 5 minutes	Glucose readings sent to smart device every 5 minutes	Glucose readings sent to smart device every 5 minutes
Data type	Unblinded	Unblinded	Unblinded	Unblinded	Unblinded	Unblinded	Unblinded
Approved ages	≥ 4 years	≥ 4 years	≥ 18 years	≥ 2 years	≥ 2 years	≥2 years Guardian 3; ≥14 years Guardian Connect	≥18 years
Location for placement	Back of upper arm	Back of upper arm	Back of upper arm	Abdomen (ages 2+ years), upper buttocks (ages 2–17years)	Upper arm (ages 7+ years), upper buttocks (ages 2–6 years)	Abdomen, back of upper arm, buttocks (ages 7–13 years)	Back of upper arm
Sensor life	14 days	14 days	14 days	10 days	10 days	7 days	Up to 90 days
Finger stick calibration	No	No	No	No	No	Yes (after initialization, at least every 12 hours)	Yes (after initialization, twice per day, 10–14 hours apart)
Warm-up time	1 hour	1 hour	1 hour	2 hour	30 minutes	2 hours	24 hours
Potential interfering substances	Ascorbic acid (vitamin C), >500 mg/day	Ascorbic acid (vitamin C), >500 mg/day	Ascorbic acid; salicylic acid	Hydroxyurea; high-dose acetaminophen (>4 g/day any dose)	Hydroxyurea	Hydroxyurea; high-dose acetaminophen (>4 g/day any dose); alcohol	Tetracycline; mannitol
Alerts/Alarms	Yes	Yes	No; trend arrows	Yes	Yes	Yes	Yes
Mean absolute relative difference (MARD)	9.20%	7.90%	9%	9%	8.20%	9.64%	8.50%



Patient education

When a CGM is prescribed, the person with diabetes(and/or their caregiver, as appropriate) should receive education and training in use of the device, including the importance of consistently wearing the CGM and sharing access to their blood glucose data.[1]

Sharing data

Sharing of CGM data and reports with diabetes care providers can help determine whether any change in the diabetes care regimen is needed. Some people also choose to share the CGM information with family members or friends, so that those individuals might be alerted to any blood glucose problems that arise.[1]

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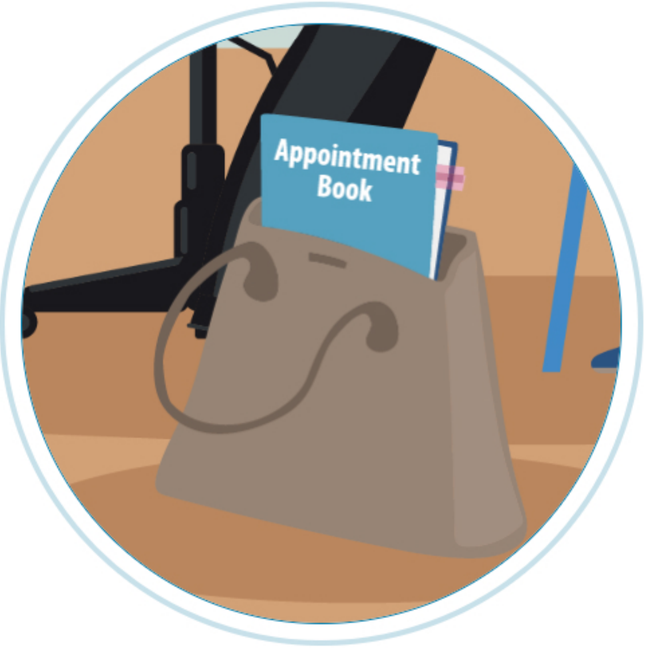
Periodic evaluation of use

The person's use of the CGM device should be reevaluated over time, including assessment of the percentage of time the device is worn, the completeness and quality of data collected, and discussion of and support for any mechanical or other technical problems that may arise.[1]



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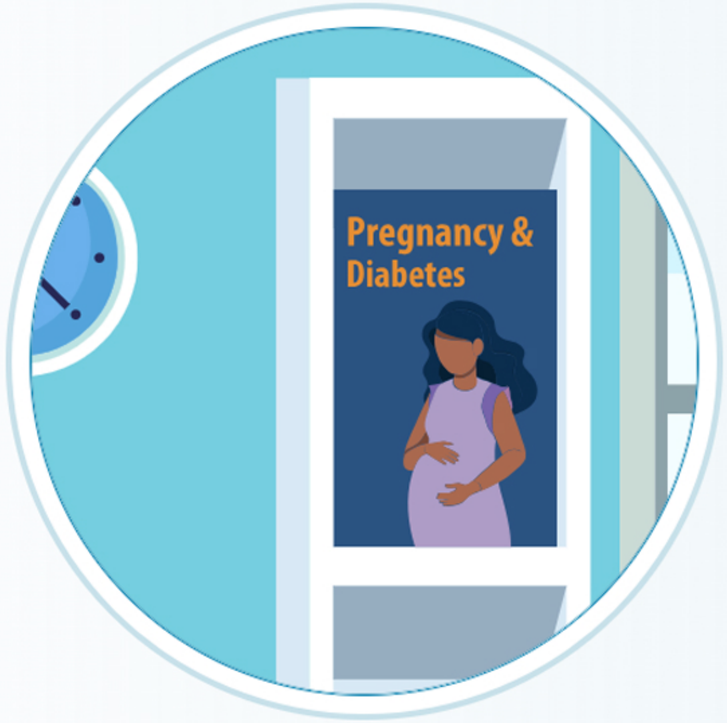

Pregnancy and CGM

When used in addition to fingerstick blood glucose testing before and after meals, CGM devices can help women with diabetes and pregnancy meet their hemoglobin A1C targets.[1]

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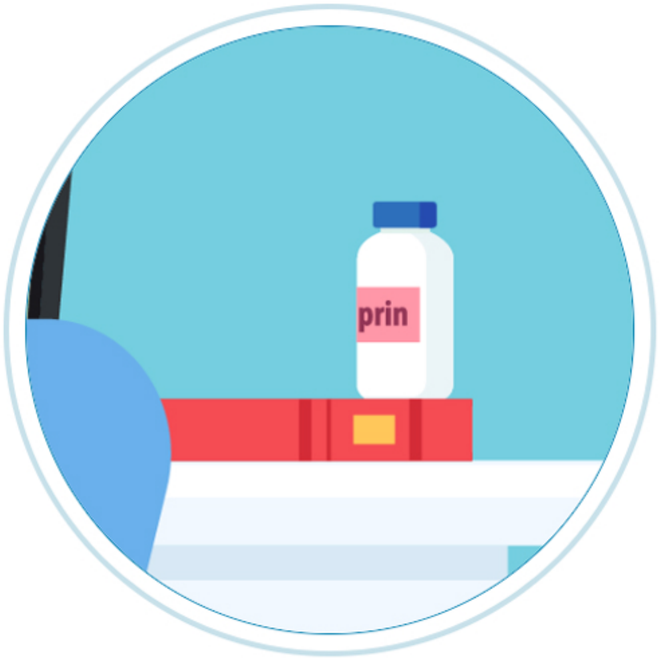
Interfering substances

Some substances, such as high-dose (>4 g/day)acetaminophen, >500 mg/day ascorbic acid (vitamin C), and hydroxyurea may interfere with the CGM and result in sensor readings that are higher than the actual glucose level.

Patients being considered for CGM use, and those with CGM readings that are inconsistent with fingerstick blood glucose or hemoglobin A1Clevels, should be assessed for the use of these interfering substances and their use discontinued if possible.[1]



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Make sure you don’t miss this!

- Although 90% of individuals with diabetes are managed in the primary care setting, a recent survey showed that just over one-third of primary care providers (PCPs) had prescribed CGMs.[3,4]

- CGM devices have been found to reduce hemoglobinA1C levels and the frequency of hypoglycemia.[1]

- The Centers for Medicare and Medicaid Services’ (CMS) local coverage determination (LCD) expanded coverage of CGM to people with diabetes using basal insulin only and to people with problematic hypoglycemia.[6]

- Selection of the type of CGM device should be individualized, and online tools exist to help compare and choose appropriatedevices.[1,7-9]

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