CONTINUOUS GLUCOSE MONITORING AND INTERFERRING SUBSTANCES

Abott/Freestyle Reference 3, 4, 5	**FreeStyle Libre 2 and 3 Plus** **Lingo** **Instinct (made by Abbott exclusively for MiniMed 780G)** **Vitamin C (ascorbic acid):** Taking more than 1000 mg of Vitamin C per day may falsely raise sensor glucose readings. This could cause a missed severe low glucose event. *Vitamin C can be found in supplements including multivitamins and cold remedies such as Airborne ® and Emergen-C®. Vitamin C is active in the body for ~12-24 hours, maximal deviation 2-3 hours after ingestion.*
Dexcom Reference 6, 7	**G6 & G7** **Stelo** **Hydroxyurea** can cause your glucose readings to be higher than your actual glucose, which could result in missed hypoglycemia alerts. **Acetaminophen** more than 1 gram every 6 hours (>4 gm/day) in adults may falsely elevate your sensor glucose readings. Use of standard or maximum acetaminophen dose of 1 gram (1,000 mg) every 6 hours, sensor readings can be used to make treatment decisions. **Hydroxyurea: an antineoplastic drug with brand names: Hydrea, Litalir, Droxia, and Siklos. Used primarily in some chemotherapy and treatment of sickle cell anemia*.
Medtronic Reference 8, 9	**Guardian 4:** **Hydroxyurea** can cause your glucose readings to be higher than your actual glucose, which could result in missed hypoglycemia alerts. **Acetaminophen** any dose may falsely elevate your sensor glucose readings. **Simplera:** **Hydroxyurea** can cause your glucose readings to be higher than your actual glucose, which could result in missed hypoglycemia alerts. **Acetaminophen or paracetamol** can falsely raise sensor glucose readings. Level of inaccuracy depends on amount of medication active in the body and can differ for each person *Acetaminophen can affect glucose up to 8 hours after ingestion*
Senseonics Eversense Reference 10	**Eversense 365 & E3 CGM Systems:** **Mannitol or Sorbitol** delivered intravenously or via peritoneal dialysis may cause falsely elevated glucose readings. **Tetracycline** may interfere with glucose readings, check with BG value. *Contraindicated in people for whom dexamethasone or dexamethasone acetate may be contraindicated*.

2026 ADA Standards of Care recommends clinicians review factors that may affect accuracy, including medications and supplements, for potential interfering substances.[1] Advise blood glucose testing if sensor glucose values are unreliable![1]

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Other considerations when Sensor Glucose is different from Blood Glucose:

- **SG does not equal BG:** Physiological differences between the interstitial fluid (sensor glucose) and blood glucose (glucose meter) may result in differences in glucose readings from CGM and blood glucose readings. These differences may be observed most significantly during times of rapid change in blood glucose, such as after eating, dosing insulin, or exercising.
- **Compression of sensor:** Review patient positioning and questionable low glucose event. Compression lows occur most often overnight due to sleeping directly on the sensor. Other factors: placement around a beltline, other very tight clothing restrictions, or if positioned within the interior of the upper arm.
- **Consider insertion site selection and proper taping (when indicated) technique.** Check skin integrity (thinness of skin or loose skin), scar tissue or other individual placement concerns. Review each manufacturer's recommended insertion techniques and troubleshoot individual patient requirements for sensor site selection.

Freestyle Libre 2 and Libre 3 Plus sensors are the only sensors currently on the market able to be worn during 1.5T and 3T magnetic resonance imaging (MRI), data may be inaccurate during and up to 1 hour after.[3] Eversense's transmitter must be removed before MRI procedure.

References:

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