

CONTINUOUS GLUCOSE SENSOR

AT CHILDREN'S HOSPITAL OF PITTSBURGH OF UPMC, we believe parents and guardians can contribute to the success of using this device and invite you to participate. Please read the following information to learn about the device and how you can help.

Fast Facts About the Continuous Glucose Sensor

- The continuous glucose sensor is a device for monitoring blood glucose (sugar) levels over a long period of time.
- The sensor can be worn for up to a week to give detailed information about a child's blood sugar levels throughout the day so trends between blood tests can be seen.
- The sensor can show how your child's blood sugar levels change depending on what and when your child eats and his or her activity level.
- The continuous glucose sensor may be prescribed for your child if your child has had multiple seizures, if your child's A1C hemoglobin levels are high, or if the doctor needs more detailed information about your child's blood sugar levels over time than can be seen through individual blood tests.
- You or your child, if he or she is old enough, must keep a log book of your child's activities and food and drink over the period that the sensor is monitoring.
- The continuous glucose sensor should be worn as long as possible, up to 1 week. After the week, you or your child must mail the recording device back to the clinic in the padded envelope provided so the information it stored can be downloaded into a computer.
- Because the recording device is delicate and expensive, you will be required to sign a contract to return it as soon as possible after the monitoring period. **You will be responsible for a \$600 replacement charge if your child loses or damages the recording device.**

What Is a Continuous Glucose Sensor?

The continuous glucose sensor is a small monitor that measures and stores information about a child's blood sugar levels over a period of time, up to 1 week. It gives real-time information about the child's blood glucose levels, including trends and fluctuations that signal when blood sugar levels will become hyperglycemic (*HI-per-gly-seem-ick*) or too high, or hypoglycemic (*HI-po-gly-seem-ick*) or too low.



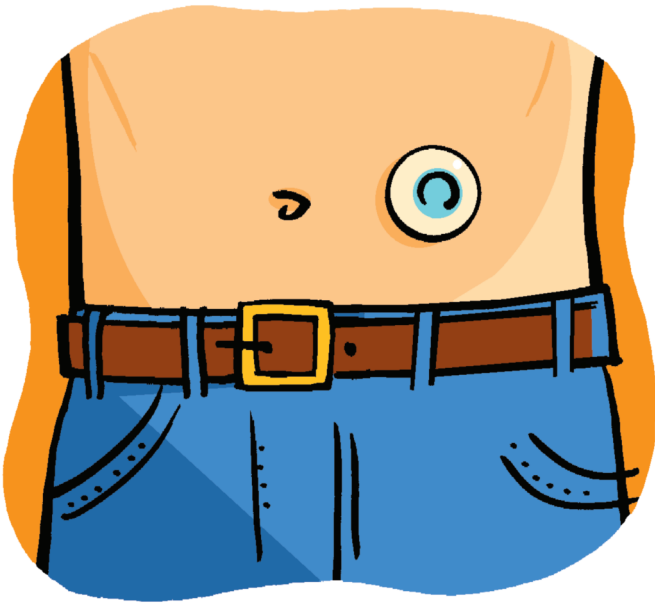
The sensor is injected under the surface of the skin with a needle using an insertion applicator. The needle then is removed and the sensor stays in place. When the sensor is inserted, your child will feel a fast, sharp prick. A small recorder that looks like a flat, plastic disk a little larger than a quarter is attached to the sensor and worn with it for the length of the test period. The recorder lies flat against the skin and can be worn under clothing without being seen. Your child can return to normal activities right away, and can swim, bath, shower, and exercise while wearing it.

Your child should continue to take blood sugar readings as usual and record daily events, such as meals, insulin, and exercise in the log book. While the continuous glucose sensor is in place, it will automatically measure and record your child's glucose measurements.

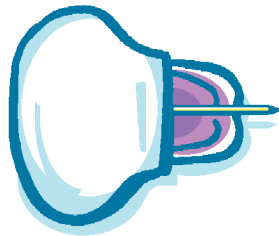
When the testing period is over, you may remove the sensor by pulling it out and taking off the recording disk. The recording disk and the log book must be mailed back to the clinic in the padded envelope that was provided to you. The sensor and needle can be thrown away in an approved sharps container.

When the recorder is received at the hospital, the data will be downloaded into a computer and your log book will be matched with the information to create a personalized report. At your child's next clinic appointment, you and your child will be able to see on a graph what his or her glucose levels were in relationship to time of day, activity, and meals. The report will help your child answer questions, such as:

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- Does my level go down during the night?
- How did that pizza I ate affect my glucose level?
- Do I have highs and lows throughout the day that I'm not even aware of?
- How well is my therapy working?



This information will help you and your child have more control over his or her glucose levels and lower A1C levels. Lower A1C levels have been shown to reduce the risk of complications such as eye, kidney, nerve, and heart disease, and can lead to a longer, healthier life.

Home Preparation

No special preparation is needed before the continuous glucose sensor is placed. You or your child should keep the area around the sensor clean and free from powders and creams while it is being worn.

Insertion of the Continuous Glucose Sensor

The nurse will talk to you and your child about options for where the sensor should be placed. Once a site has been chosen, the nurse will clean the area with an alcohol swab. The sensor will be placed in the insertion applicator, which will push the sensor under the skin with a quick snap. After a few minutes to allow the sensor to set up, the recorder will be placed on the sensor. Your child may return to normal activities after the sensor is placed.

A Parent's/Guardian's Role in Placing and Using the Sensor

The most important role of a parent or guardian when first placing the continuous glucose sensor is to help your child stay calm and relaxed. The best way to help your child stay calm is for you to stay calm.

- You may stay with your child as the sensor is placed.
- You may bring a "comfort" item — such as a "blankie" or stuffed animal — for your child to hold while the sensor is placed.
- Feel free to ask any questions of your diabetic education nurse.
- Encourage your child to wear the continuous glucose sensor for as many days as possible (up to 1 week) to get the most information from it.
- Help your child keep as accurate a log sheet as possible while he or she wears the sensor.
- Make sure that you return the recorder in the padded envelope provided as soon as the sensor is removed. **You will be responsible for a \$600 replacement charge if you lose or damage the recording device.**

Medical Insurance Coverage

Most types of medical insurance will cover the full cost of the placement and data interpretation needed for continuous glucose sensor testing. In some cases, there may be a co-pay charge. Medical insurance will not cover the replacement charge for lost or damaged recording devices.

Special Needs and Questions

If you have any questions, or if your child has any special needs you feel the endocrinology department needs to know about, please call the diabetic educator at Children's Hospital before your child's clinic appointment.

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To see the list of all available patient procedures descriptions, please visit www.chp.edu/procedures.