CONTINUOUS GLUCOSE MONITORS (CGM)

What Does CGM Do?

- CGM is a medical device that monitors the glucose levels in the fluid underneath the skin approximately every 5 minutes. This is different from a blood glucose meter that monitors the glucose in blood.
- CGM is helpful in 4 ways:
  - Real time information on your glucose value and trend (shows you where the glucose is headed)
  - Has alerts to notify you of an out-of-range glucose allowing you to treat a low or high glucose right away
  - It allows you to see the effects of food, insulin, exercise, illness and other variables that effect your glucose in real time. This can be helpful in the moment and to see patterns over time. Knowing your patterns allows you to make decisions about food, exercise or insulin can improve your overall blood glucose.
  - It can be downloaded and shared with your medical team to provide a more complete glucose pattern, which is helpful in adjusting your insulin doses and overall diabetes management.

CGM Values Will Not Always Match Your Meter Readings

- Because CGM monitors glucose from fluid and not blood, there may be a 10-15 minute delay in the CGM reading compared to the glucometer when the glucose is rapidly rising or falling.
- Depending which CGM system you are using, glucose values may be about 10-20% higher or lower than meter reading.

How Does It Work?

- CGMs have 3 parts:
  - Sensor: a wire that is placed under the skin and held in place with adhesive (similar to a Band-Aid). The sensor is placed on the same areas where you administer insulin as long as there is enough skin and fat to be pinched up. It is recommended that a new sensor be placed every 6-7 days in a different spot on your body.
  - Transmitter: attaches to the sensor and wirelessly sends the glucose information to the receiver
  - Receiver/Display Device: Receives the glucose information from the transmitter and displays it for you to see. Depending on the CGM brand, the receiver can be a separate device or can be sent your smartphone or insulin pump.
• The CGM displays your current subcutaneous glucose level and the glucose trend: if level is going up, down or steady (and how quickly)
• CGM may also signals when glucose level is outside a programmed range using low and high alerts.
• You can use the CGM to learn how your body’s glucose reacts to activities and food.

*Does This Mean I Don’t Have To Prick My Finger?*

• No, you still have to check your blood glucose with your meter whenever you administer insulin.
• You must also input a reading from your meter into the CGM 2-3 times a day. This is called calibrating the CGM and is best done when BG is steady and not rapidly changing.

*Who should consider using a CGM?*

• CGM can be beneficial to anyone with diabetes
• CGMs are particularly helpful for:
  o Individuals with hypoglycemia unawareness (do not recognize low blood glucose)
  o Those with a history of low blood glucose requiring medical attention
  o Those involved in sports or varied and active lifestyles
  o Young children who cannot communicate feelings of hyperglycemia or hypoglycemia
  o Children and families that require frequent blood glucose checks
  o Children going away to camp or colleges
  o In women with diabetes planning a pregnancy
  o During pregnancy

*How can I get one?*

• Talk with your providers and diabetes educators about your interest in CGM and they will:
  o Inform you of the requirements of obtaining a CGM
  o Introduce you to the CGMs available on the market
  o Discuss with you the benefits and considerations
  o Give you the contact information of the representatives of each company
  o Most importantly, see if a CGM is right for you and your family