

# GUIDELINES FOR AT HOME MANAGEMENT OF ELEVATED BLOOD SUGAR AT HOME

***Due to the current Coronavirus/COVID-19 Pandemic, you may have limited access to your doctor either by phone or by appointment. We are recommending management at home to avoid visiting an ER where there is overcrowding, limited providers and increased risk of infection. Therefore, the recommendations below are just a general guide to help manage severe hyperglycemia (high blood sugar) at home until you are able to communicate with your health care provider in the next 24-72 hours. However, if despite following the recommendation below you are having persistent or worsening symptoms and/or you have severe nausea/vomiting, difficulty breathing, or confusion then they are advised to be seen immediately either in an office setting or ER (whichever is available).***

## **Guidelines for TYPE 2 DIABETES:**

Here are some common tips, which may vary for each person:

- 1) Drink lots of fluids. If you're having trouble keeping water down, have small sips every 15 minutes or so throughout the day to avoid dehydration.
- 2) If you are experiencing a low (blood sugar below 70 mg/dl or your target range), eat 15 grams of simple carbs that are easy to digest like honey, jam, Jell-O, hard candy, popsicles, juice or regular soda, and re-check your blood sugar in 15 minutes to make sure your levels are rising. Check your blood sugar extra times throughout the day and night (generally, every 2-3 hours; if using a CGM, monitor frequently).
- 3) If your blood sugar is persistently high for 2-3 days:
  - a) Over 200s, try modifying your diet first. Avoid sugary beverages such as soda and juice (even if it says "sugar free"). Avoid, pasta, bread, large quantities of soup. Increase vegetables.
  - b) If persistently over 300s, and you are on insulin, you can self increase long acting insulin (lantus/levemir/basaglar/toujeo/tresiba) in increments of 4 units every day especially if you are waking up with high sugars. If you notice high sugars throughout the day (after eating), you can increase your premeal insulin (humalog/novolog/apridra/fiasp) by increments of 2 units every days. If despite these changes your sugars are still elevated contact your doctor.
  - c) If your sugars are over 300s despite dietary changes and you are on oral medications, make one of the following changes at a time to prevent a sudden drop in your sugar levels and in the following order:
  - d) Consider increasing metformin by an additional pill if you are taking less than 2000mg and if your kidney function is normal.
  - e) If you are on a low dose of a weekly injectable such Ozempic you can increase up to 1mg (lower dose 0.25mg and 0.5mg). If you are on Trulicity you can increase from 0.75 to 1.5mg. This may require that you inject twice at the same time to reach the desired dose. If you are on Victoza you may increase from 0.6mg to 1.2mg or 1.2mg to 1.8mg. Bydureon only comes in 1 dose so no dose adjustment is necessary. These changes can only be done if you are not experiencing nausea or vomiting.
  - f) If you are on Invokana 100mg you may increase to 300mg, if you are on Jardiance 10mg you can increase to 20mg (your doctor can later prescribe 25mg since this only comes in 10mg and 25mg), if you are on Farxiga 5mg you can increase to 10mg, if you are on Steglatro 5mg you can increase to 15mg daily. These adjustments may only be

done if kidney function is normal or stable and you will need to contact your doctor for dose adjustment and refills since you will run out before your 30 or 90 day supply.

- g) If you take glipizide (less than 20mg) you may increase by 5mg, glimeperide (less than 8mg) you can increase by 2mg, repaglinide (less than 4mg before each meal), you may increase by 0.5mg before each meal, and nateglinide (less than 120mg before each meal), you may increase by 60mg. These adjustments may only be done if kidney function is normal or stable and may require that you cut pills in half (if they are not extended release versions). You should also contact your doctor to inform him or her of these changes.
- 4) If despite these changes your sugars are still high contact your doctor. If your sugars are in the 500s or higher and/or you are having symptoms of excessive thirst, urination, blurry vision, abdominal pain, and fatigue go to an ER.

### **Guidelines for TYPE 1 DIABETES**

- 1) ALWAYS TAKE YOUR INSULIN! Illness (Fever over 101, vomiting, diarrhea, upper respiratory infection) may cause blood sugar to rise.
- 2) Test your blood sugar more often when you are sick. You should test every 3 hrs while awake. If blood sugars are >300 mg/dL (the ADA even recommends checking > 240mg/dl), check urine for ketones every 3 hrs until ketones resolve for 6 hrs and give correction/sliding scale rapid acting insulin (Novolog/Humalog/Apidra/Fiasp) every 3 hrs. Please continue long acting insulin (Lantus/Levemir/Toujeo/Tresiba/Basaglar) as prescribed.
- 3) You can use the scale below.

Urine Ketones	Insulin	Correction Frequency
Negative	No extra insulin	Give correction every 3 hours
Small 0.6-1.5	Increase Correction by 5%	Recheck BG in 3 hours
Moderate 1.5-3	Increase correction by 10% and call MD	Recheck BG in 3 hours
Large > 3	Increase correction by 20% and call MD	Recheck BG in 3 hours

- 4) Drink a glass of sugar-free liquid every hour. (Especially if you are vomiting or have diarrhea).
- 5) If your blood sugar is < 200 and you have ketones - you can drink fluid that contain some carbohydrates and electrolytes such as ½ cup orange juice, apple juice, Gatorade, Pedialyte, or regular soda. If you can't eat your regular meal due to nausea and vomiting, try to eat 15 grams of carbohydrate such as 6 saltine crackers, 1/4 cup sherbet, 1 slice of bread, 1/3 cup regular jell-o or a 3/4 cup tomato soup. Be sure to take the insulin you need for the carbohydrate eaten. The goal here is to raise the blood sugar, so you can safely give more insulin to prevent, or clear ketones. Re-check BG in 30 minutes and then give fast acting insulin to correct for high BG if it has been at least 3 hours since your last correction
- 6) Also check for ketones if you have any of the following signs:
- Nausea & vomiting
  - Rapid breathing
  - "Fruity" smelling breath or urine
  - Extreme thirst
  - Stomach pain

- Excessive sleeping/lethargy/confusion

7) Call your doctor or go to the ER if the following happens:

- Your blood sugar is higher than 300 mg/dL with large ketones and vomiting
- You have ketones even if the blood sugar is low or normal
- You are unable to keep down any food or fluid
- You feel that you need help or are confused about insulin dosage