

## ***Information for Patients with Diabetes on Insulin:***

### **How to treat hypoglycemia:**

When self-monitoring of blood glucose (SMBG) reveals a blood glucose of  $\leq 70$  mg/dL, it is reasonable for a person with insulin/drug-treated diabetes to consider defensive actions. The options include repeating the measurement in the near term, avoiding critical tasks such as driving, **ingesting carbohydrates**, and adjusting the treatment regimen, **calling their health care provider if they are unable to adjust insulin themselves**.

Symptomatic — In order to treat early symptoms of hypoglycemia, patients should be certain that fast-acting carbohydrate (such as glucose tablets, hard candy, or sweetened fruit juice) is available at all times. **15 MINUTE RULE: *Fifteen to 20 grams*** is usually sufficient to raise the blood glucose into a safe range without inducing hyperglycemia. **TEST GLUCOSE IN 15 MINUTES, IF NORMAL NO NEED TO TREAT AGAIN UNLESS BLOOD SUGAR FALLS AGAIN.**

*This can be followed by long-acting carbohydrate to prevent recurrent symptoms.*

**15 G of carbs is 4 ozs of OJ, 4 GLUCOSE TABLETS IF THEY HAVE 4G/TAB**

**Severe HYPOGLYCEMIA** — Treatment of severe hypoglycemia, when the patient is unconscious or unable to ingest carbohydrate, requires that close friends or relatives be trained to recognize and treat this complication. Dealing with a loved one who is pale, sweaty, acting in a bizarre fashion, or unconscious and convulsing is often a terrifying situation, yet one that can be reversed with an injection of [glucagon](#). Successful glucagon therapy requires that the glucagon kit can be located and that the relative or friend is able to remain calm, mix the glucagon powder with the diluent, draw it up, and give the injection. The glucagon kit should be checked regularly and replaced when it is beyond its expiration date.

- A subcutaneous (IN SKIN) or intramuscular injection of 0.5 to 1.0 mg of [glucagon](#) will usually lead to recovery of consciousness within 10 to 15 minutes, although it may be followed by marked nausea or even vomiting.
- Patients brought to the hospital can be treated more quickly by giving 25 g of 50 percent glucose (dextrose) intravenously. A subsequent glucose infusion (or food, if patient is able to eat) is often needed, depending upon the cause of the hypoglycemia.

## Advanced Diabetes and Endocrine Care, PLLC

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***These recommendations are for patients on intensive insulin therapy, that have gone through Diabetes education, and understand the difference in fast, and long acting insulins.***

***Individual needs for patients are tailored based on your provider's assessment of your Diabetes Management goals.***

### **BOLUSES WITH MEALS USING FAST ACTING INSULIN:**

#### **WE ADVISE OUR PATIENTS TO:**

1. Bolus before meals, and try not to miss boluses before meals.
2. Lag time; TIME BETWEEN INSULIN(FAST ACTING) AND FOOD
3. 15 minutes for numbers BEFORE MEALS between 100-150
4. 20 minutes for numbers BEFORE MEALS above 200, 30 minutes for numbers above 300.
5. Not to exceed 20-30 G carbs per snack, not to exceed 50-60 G carbs per meal.
5. Avoid foods with high Glycemic excursions (or high glycemic index foods/high rise in glucose right after eating before insulin kicks in).

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### 1500 RULE

This rule was developed by Paul Davidson, MD Medical Director of Diabetes Training center at HCA West Paces Ferry Hospital in Atlanta, GA. It shows how far your BG will drop per unit of fast acting insulin.

- Works for Type-1 Diabetes, and most Type -2 Diabetics.
- 1500/TDD (Total daily dose long acting plus all short acting insulin)
- Example – Someone's total insulin per day is 50 units = $1500/50=30$  point drop in glucose per unit of Humalog or Novolog, apidra, or Human regular insulin

1500 Rule	
Total Daily Insulin Dose	Point Drop Per Unit of Humalog or Regular or any fast acting insulin
20	75
25	60
30	50
35	43
40	50
60	25
75	20
100	15
150	10
200	75