

Preventing and Treating Hypoglycemia

Hypoglycemia, or low blood sugar, occurs at some point in more than 50% of people living with diabetes.

Many people report not knowing how to look out for, prevent, and manage hypoglycemia. This condition can be caused by skipping meals, eating small meals or snacks, an increase in physical activity, consuming alcohol, and by taking certain medications (especially insulin). If left untreated, severe cases of hypoglycemia can lead to **loss of consciousness, seizures, or death.**

Signs/Symptoms

To identify hypoglycemic episodes, be aware of these common signs/symptoms occurring without an otherwise known cause:

- Hunger
- Nausea
- Headache
- Nervousness
- Shakiness
- Confusion
- Sleepiness
- Trouble Speaking

Prevention:

2 of the most common causes of hypoglycemia are **changes in eating habits or medication dosage.**

To help maintain steady blood sugar levels, promote planning regular meals with consistent carbohydrate foods. Carbohydrates are broken down into simple sugars and are one of the main foods contributing to blood sugar control. Controlling portion sizes and ensuring an adequate amount of carbohydrates will help maintain regular blood sugar.

Many people with diabetes also take medications to help manage blood sugar levels. It is important that they are educated on when and how to take their medications. **Some common anti-diabetic medications with specified recommended administration times include:**

- Glipizide – 30 minutes before meal
- Glyburide – with meals at same time each day
- Glimepiride – with breakfast or first meal of the day
- Novolog®(Insulin Aspart) – immediately (5-10 minutes) before mealtime
- Fiasp® (Insulin Aspart) – at beginning of mealtime or within 20 minutes of beginning meal
- Humalog®/Admelog®(Insulin Lispro) – within 15 minutes before meal or immediately after meal
- Lyumjev® (Insulin Lispro-aabc) – at start of meal or within 20 minutes of beginning meal
- Humulin® R or Novolin R®(Insulin Regular) – 30 to 60 minutes before meal

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Treatment:

If a resident shows signs/symptoms of low blood sugar, immediately alert the appropriate onsite health care professional in charge of that resident.

A blood sugar test may be administered to determine if the resident has hypoglycemia.

Low blood sugar (generally defined as ≤ 70 mg/dL) can be quickly remedied by giving the resident a quickly-digested, high-sugar food such as:

- 2 or 3 (15-20g) glucose tablets
- ½ cup (4 oz) Fruit juice or soda
- 1 tablespoon sugar or honey
- 5 or 6 hard candies

Wait 15-20 minutes and check the blood glucose to make sure it is no longer too low. If it is still low then give another serving of a quick sugary snack. Repeat until the person's blood sugar is at least 100 mg/dL.

Once their blood sugar is above 100mg/dL the resident should have a hardier snack or meal such as a granola bar, crackers, or fruit to maintain their blood glucose in the normal range.

In severe cases, if the resident is seizing, unconscious, or otherwise unable to take food by mouth, a healthcare provider may **administer**

a glucagon injection, following the directions included in the kit.

The resident will be positioned on their side after administration to avoid vomiting and possible aspiration. 911 should be immediately called and a second dose may be administered 15 minutes later if still not responsive. Once the resident is awake, give them a fast-acting glucose source as mentioned above.

Related F-tags according to CMS SOM:

F-689 Free of Accident Hazards –

Poorly managed glycemic control can cause hypoglycemia and increase the risk of falls. In addition, residents that experience polyuria, especially nocturia, may be at a greater risk of falling.

F-757 Unnecessary Medications –

Sliding scale insulin therapy (by itself) for older adults is not appropriate for any care setting and can be considered an unnecessary medication. Appropriate diabetic therapy can improve resident care and quality life. Doctors, pharmacists and nurses should work together to ensure that all diabetic patients receive the clinical monitoring necessary to achieve optimal medication therapy.