

# The 15/15 Rule for Low Blood Glucose (Sugar)

You will use the 15/15 Rule to treat low blood glucose. Follow the 5 steps below.

Symptoms While Awake	Symptoms While Sleeping
<ul style="list-style-type: none"><li>• Shaky</li><li>• Nervous</li><li>• Weak</li><li>• Tired</li><li>• Pale skin</li><li>• Sweaty</li><li>• Dizzy</li><li>• Headache</li><li>• Stomach ache</li><li>• Blurry vision</li><li>• Confused</li><li>• Sudden mood or behavior change: angry, irritated, sad, crying</li></ul>	<ul style="list-style-type: none"><li>• Nightmares</li><li>• Wake up suddenly</li><li>• Sweaty (wet clothes or bedding)</li><li>• Fast heart beat</li><li>• Can't fall back asleep</li><li>• Restless</li></ul>

## Step 1: Check

- Check your child's blood glucose with a blood glucose monitor (finger poke) if they:
  - Have symptoms of low blood glucose **or**
  - Use a continuous glucose monitor (CGM) and it's reading less than 70 milligrams per deciliters (mg/dL).
- If their glucose reading is less than 70 mg/dL, go to Step 2.

## Step 2: Treat

Treat low blood glucose with 1 fast-acting (simple) carbohydrate snack that's about 15 grams (g)\*. After that, go to Step 3.

- A fast-acting (simple) carbohydrate snack doesn't have fat or protein in it. Think pure sugar. Fat and protein slow how your body absorbs the carbohydrate and will not bring the blood glucose up fast enough.



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- Good examples of fast-acting (simple) carbohydrates for treating low glucose are:

- 4 ounces (oz) of 100% fruit juice
- 1 tube of glucose gel
- 3 or 4 glucose tablets
- Fruit snacks

- Do not use chocolate or milk because both contain fat.

\*For some people, especially younger children, using 15 g of fast-acting (simple) carbohydrate may raise their blood glucose too much. They may only need 5 to 10 g to treat low blood glucose. You can change the amount of carbohydrates used to treat low glucose (between 5 to 15 g) until you find the amount that brings your child's low glucose into their target range, without causing their glucose to go too high after treatment.

## Step 3: Wait 15 minutes

Your child should start feeling better while the carbohydrate raises their blood glucose. **It's important to wait 15 minutes, then move to Step 4.**

## Step 4: Re-check

Even if your child is feeling better, check their blood glucose again to make sure it's over 70 mg/dL.

- Check their glucose level with a blood glucose meter (finger poke) even if they use a CGM. This is because there can be lag time with CGMs.
- **If their glucose is over 70 mg/dL**, they're feeling better, and they are eating within 1 hour, they can return to their normal activities. If their next meal time is more than 1 hour away, go to Step 5.
- **If their glucose is still under 70 mg/dL**, repeat Steps 1 through 4.
- **If low glucose has been treated 3 times and is still under 70 mg/dL**, call our office at (614) 722-4425 Monday through Friday, 8 a.m. to 4:30 p.m. or (614) 722-2000 for nights, weekends, and holidays.

## Step 5: Preventing low blood glucose

Your child may need a carbohydrate snack, but won't get insulin for it, in order to prevent low blood glucose. It should be about 15 g of a slow-acting (complex) carbohydrate with fat and protein. Examples of slow-acting (complex) carbohydrate snacks for preventing low glucose are:

- About 4 crackers with cheese or peanut butter
- Half of a lunch meat sandwich
- An 8 oz glass of milk
- Granola bar

This slow-acting (complex) carbohydrate snack will help keep blood glucose steady in the following situations:

- After treatment of low blood glucose:
  - If a low blood glucose has been treated, your child is feeling better, but their next meal time is more than 1 hour away, they should have a 5 to 15 g slow acting (complex) carbohydrate snack. This will help keep their blood glucose from going low again before their next meal.
- At bedtime:
  - If blood glucose is between 70 to 100 mg/dL, do not treat with a fast-acting (simple) carbohydrate. This is not low, but it's on the lower end of the target range. It's on the lower end of target range. Giving them a 5 to 15 g slow-acting (complex) carbohydrate snack will help keep their blood glucose steady through the night.
  - If blood glucose is under 70 mg/dL, treat with a 15 g, fast-acting (simple) carbohydrate first. Once their glucose is over 70 mg/dL, give another 5 to 15 g, slow-acting (complex) carbohydrate snack (not covered by insulin) to keep their blood glucose steady through the night.
- Exercise
  - If blood glucose is under 100 mg/dL before starting exercise, have a 5 to 15 g, slow-acting (complex) carbohydrate snack depending on your child's age and size. This will help prevent a low blood glucose during exercise.
  - Depending on the type of activity and their blood glucose number, they may need to have snacks every 30 to 60 minutes during constant activity.
  - Therapeutic Recreation will give you more specific details on exercising with diabetes.

## Other Treatment Rules

### 1: Carbohydrates that you DO NOT give insulin for.

Do not give insulin for carbohydrates that are being used to treat or prevent low blood glucose. This will cause low blood glucose again.

### 2: If in doubt, treat.

If your child has symptoms of low blood glucose but can't check it, treat for low blood glucose using the 15/15 Rule. Check their blood glucose when you can.

### 3: Treat before you eat.

If your child's blood glucose is under 70 mg/dL before a meal, treat it before they eat using the 15/15 Rule.

- Treat with 5 to 15 g of fast-acting (simple) carbohydrate, then wait 15 minutes.
- Once their glucose is over 70 mg/dL, they can eat.
- It's okay to give insulin before they start eating.
- They will only take insulin for the carbohydrates in the meal. Do not include the carbohydrates that were used to treat the low blood glucose.
- Do not do a blood glucose correction bolus at this time even if their blood glucose has gone above their target range.



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