

# Adjusting Your Diet and Insulin for Medical Procedures

When you have diabetes and take insulin, getting ready for medical procedures or fasting lab tests may mean that your diet and insulin dose have to change. The guidelines below will help you adjust your diet and insulin as you prepare for your procedure or lab test. These are general guidelines only. **Always follow your doctor's instructions.**

**If you are being followed by the Diabetes, Hypertension, and Cholesterol Centre, a diabetes educator, or you have a diabetes specialist, contact them at least one week before your procedure for more advice about adjusting your insulin.**

## Barium Enema and Colonoscopy

### Diet:

- You will start clear fluids 1–2 days before the procedure as directed by your doctor.
- Choose only those fluids that are in the chart on the next page.
- **Do not drink any fluids that are red or purple.**
- If your blood sugars fall below 4.0 mmol/L or if you have symptoms of low blood sugar, take 15–25 grams carbohydrate or 250 mL (1 cup) of fluid from List 1. Test your blood sugar again in 15 minutes and take more fluid if you need to.
- Take extra fluid from List 1 if you have concerns about falling blood sugars.
- Treat the clear fluid days like a sick day and use the chart on the next page to choose what to eat and drink. Your diet can be changed into clear fluids in one of these ways:
  - If you count carbohydrate, try to drink the same amount of carbohydrate as you would eat at each meal and snack. Use the conversion of 10 grams carbohydrate 125 mL (½ cup) of any item from List 1.
  - If you follow a meal pattern, 125 mL (½ cup) of any item from List 1 will replace 1 serving from the grains and starches, fruit, milk and alternatives, or other choices group.
  - If you do not follow a special diet or meal plan, take 125 mL (½ cup) of a fluid from List 1 every hour.

<b>List 1 – Fluids that contain sugar</b> (Every ½ cup has 10 grams of carbohydrate)	<b>List 2 – Fluids that are sugar-free</b> (Choose as desired)
<ul style="list-style-type: none"> <li>• fruit drink or fruit juice without pulp (examples, apple, white grape, cranberry)</li> <li>• sports drinks (e.g., Gatorade®)</li> <li>• regular pop</li> <li>• regular Kool-Aid® or other powdered drinks (for example, Tang®)</li> <li>• regular popsicle</li> <li>• regular Jell-O®</li> </ul>	<ul style="list-style-type: none"> <li>• water</li> <li>• clear bouillon or broth</li> <li>• diet pop</li> <li>• diet Kool-Aid® or Crystal-Lite®</li> <li>• black coffee or tea</li> <li>• diet popsicle</li> <li>• diet Jell-O®</li> </ul>

## Insulin and Blood Testing:

### The Day Before the Test

- Decrease the evening Humulin N®, Novolin NPH®, Lantus®, or Levemir® insulin dose by 20%, or as advised by your doctor. This will reduce the risk of low blood sugars. **Make sure to reduce your evening insulin the night before the test to reduce the risk of lows on the morning of the procedure.**
- Decrease your Apidra®, Humalog®, NovoRapid®, Humulin R®, or Novolin® Toronto insulin dose by half (50%), or as advised by your doctor. This will reduce the risk of low blood sugars. You may need to lower your insulin more if your low blood sugars continue.
- If you are on an insulin pump:
  - Continue with your usual pump basal rate the day before the test, or advised by your doctor. Lower your basal rate by 20% if your blood sugar tests low.
  - The evening before the test, decrease your pump basal rate by 20% at bedtime, or as advised by your doctor. This will reduce the risk of low blood sugars.
  - Decrease your bolus dose by half (50%), or as advised by your doctor. This will reduce the risk of low blood sugars. You may need to lower this more if your low blood sugar continues.
- Test your blood sugars more often than usual (at least every 4 hours). Blood sugars in the range of 8–12 mmol/L are fine for these 2 days, even if this is higher than your usual target.
- Call your doctor if your blood sugars are too high.

## Test Day:

- Decrease your morning Humulin N<sup>®</sup>, Novolin<sup>®</sup> NPH, Lantus<sup>®</sup>, or Levemir<sup>®</sup> insulin dose or insulin pump basal rate by 30%, or as advised by your doctor. This will reduce the risk of low blood sugars during the test.
- **Do not** take your morning Apidra<sup>®</sup>, Humalog<sup>®</sup>, NovoRapid<sup>®</sup>, Humulin R<sup>®</sup>, or Novolin<sup>®</sup> Toronto insulin before the test. Take it once your test is done and you are ready to eat.
  - Test your blood sugar before you give this dose of insulin. If your blood sugar is higher than usual, you may need a higher dose of fast/short-acting insulin.

## Gastroscopy

### Night Before:

- Do not have anything to eat or drink after midnight.
- Decrease your Humulin N<sup>®</sup>, Novolin<sup>®</sup> NPH, Lantus<sup>®</sup>, Levemir<sup>®</sup> insulin or pump basal rate by 20% the night before the test to avoid lows the morning of the test.
- Eat a bedtime snack to reduce the chance of having a low blood sugar in the morning.

### Test Day:

- Decrease your morning Humulin N<sup>®</sup>, Novolin<sup>®</sup> NPH, Lantus<sup>®</sup>, or Levemir<sup>®</sup> insulin, or insulin pump basal rate by 30%.
- **Do not** give Apidra<sup>®</sup>, Humalog<sup>®</sup>, NovoRapid<sup>®</sup>, Humulin R<sup>®</sup>, or Novolin<sup>®</sup> Toronto insulin before the test. Take it once the test is done and you are ready to eat.

## Fasting Blood Tests

To avoid low blood sugars:

- Have a bedtime snack 12 hours before blood test.
- Decrease your evening Humulin N<sup>®</sup>, Novolin<sup>®</sup> NPH, Lantus<sup>®</sup>, or Levemir<sup>®</sup> insulin by 10–20%.
- If you are on an insulin pump **and** have not done any overnight basal check within the last year, decrease the overnight basal rate by 20%.
- Test your blood sugar before leaving home. If your blood sugar is less than 4 mmol/L, eat, and have the blood test done on another day.
- Give your usual morning insulin after the test is done and you are ready to eat.

