

Diabetes Medications:

Blood Glucose Management Before Surgery

When you have diabetes, managing your blood glucose is *always* important. But before you have surgery, it's vital. This sheet tells you why— and explains what you can do to prepare.

Why is my blood glucose so important right now?

Studies show that people with well controlled blood glucose have fewer problems during and after surgery. But unfortunately, staying in control might not be so easy. Surgery can cause big problems in blood glucose levels — even if you normally have things under control. Here's why:

- **Surgery is stressful.** Stress usually increases before, during, and after surgery. Beforehand, you're probably a bit nervous. During and after surgery, your body is stressed, trying to heal itself. And unfortunately, stress makes your body release hormones that make it even more difficult than usual to regulate blood glucose.
- **You may go off your normal meal plan.** Often your doctor will give you special instructions about eating and drinking in the hours before surgery. And for a few days after, you might not eat normally either. Going off your meal plan can cause changes in blood glucose levels.
- **Depending on what type you take, you may be told to stop taking your diabetes medications before surgery.** Or you may need to switch to a different medication, or adjust your dose.



If you have diabetes, prepare for a surgery by reading this handout and following your doctor's advice.

The stress and changes that surgery brings can push your blood glucose too high — or too low. Very high or low blood glucose can be dangerous at any time. But they're especially risky when they happen during or after surgery. They can cause dangerous complications and slow your recovery. **So to avoid problems, feel better, and get well faster — control your blood glucose.**

What should I do to prepare for surgery?

Use this checklist to help make sure your blood glucose stays in control before, during, and after your surgery.

Before you set a date for your surgery...

- Visit the doctor who guides your diabetes treatment. Discuss how to get your diabetes in the best possible control in the weeks before your surgery. Can you fine-tune your treatment plan? Should you adjust your insulin before surgery? Do you need any special tests to check for possible problems during surgery? Your doctor can answer these questions.

1 week before your surgery...

- Test your blood glucose before each meal and at bedtime, if you don't already. Most people with diabetes should aim for these target values:
 - My pre-meal target: 70 to 130 mg/dL or _____
 - My bedtime target: 100 to 140 mg/dL or _____
- Follow your diabetes treatment plan faithfully. It's more important than ever right now.

1 day before your surgery...

- Continue to test your blood glucose before each meal and at bedtime — and write down the values. Your doctor may need to refer to these readings.
- Continue taking your oral diabetes medications. Take the same pill(s) at the same time as usual, unless your doctor tells you not to.
- Continue taking your insulin or other injectable medication as usual, unless your doctor tells you otherwise.
- Don't eat or drink after midnight (12 AM). You can drink a few sips of water if you're thirsty.

The day of your surgery...

- Adjust your insulin according to the box at right (or your doctor's specific instructions).
- Stop taking your other usual diabetes medications.
- Check your blood glucose.
 - If it's low (less than 70 mg/dL), drink half a cup of clear soda (regular, not diet) or clear juice (apple, cranberry, or grape — not orange). Wait 15 minutes, then test again. If it's still low after two treatments, call the doctor who cares for your diabetes.
 - If it's high (more than 150 mg/dL), take a correction dose of rapid-acting insulin. If you don't have correction doses, call your diabetes doctor.

When you go in for your surgery:

- Bring your written blood glucose records with you.
- Report your last blood glucose reading to the doctor or nurse.
- Remind the doctor or nurse what you've done about your medications and your diet in the last few hours or days.

IF YOU TAKE INSULIN...

If you take insulin, take your regular dose up until the night before your surgery. **On the day of surgery, you may need to switch to a peakless (long-acting) insulin.** There are two types of peakless insulin, glargine (Lantus) and detemir (Levemir).

The doctor who directs your diabetes treatment can give you specific instructions for adjusting your insulin before surgery.

If you don't receive specific instructions, follow these general guidelines for making the switch on the morning of surgery:

- **If you already take peakless insulin (Lantus or Levemir),** take it as prescribed, including the morning of surgery.
- **If you use NPH insulin,** replace it with peakless insulin on the morning of surgery. The dose should be 80% of the TOTAL amount of NPH you usually take in a day.

For example:

If your usual daily dose of NPH is 40 units, THEN INSTEAD take 32 units of peakless insulin (Lantus or Levemir) on the morning of surgery.

- **If you use 70/30 or 75/25 insulin,** replace it with peakless insulin on the morning of surgery. The dose should be 60% of the TOTAL amount of 70/30 or 75/25 insulin you usually take in a day.

For example:

If your usual daily dose of 70/30 or 75/25 is 50 units, THEN INSTEAD take 30 units of peakless insulin (Lantus or Levemir) on the morning of surgery.

- **If you use an insulin pump:**

- Call your doctor before surgery to create a plan for restarting your pump after taking peakless insulin.
- On the morning of surgery, take a dose of peakless insulin equal to the TOTAL amount of basal insulin you usually take in a day.
- One hour after you've taken the peakless insulin dose, remove your pump.
- Take rapid-acting insulin when you eat or to correct a high blood glucose (use a syringe or pen).
- Call your doctor or pharmacist if you have any questions about adjusting your insulin.

Instructions from my doctor:
