

Diabetes: Managing blood glucose, insulin, and medications before surgery

Why is it so important to control your blood glucose right now?

When you have diabetes, managing your blood glucose (blood sugar) is **always** important. But before you have surgery, it's more important than ever.

Studies show that people with well-controlled blood glucose have fewer problems during and after surgery. In fact, you may not be able to have an elective (not required) surgery if your HbA1c is higher than 8%. But staying in control is not always easy. Here's why:

- **Surgery is stressful.** Stress usually increases before, during, and after surgery. Stress makes your body release hormones that make it even more difficult than usual to control blood glucose.

These changes can push your blood glucose too high, or too low. Very high or low blood glucose can be dangerous at any time. But extreme levels are especially risky when they happen during or after surgery. They can cause dangerous complications and slow your recovery.

- **You may go off your normal meal plan.** Depending on the type of surgery you are having, you might not be allowed to eat your normal meal plan for several hours or days after surgery.
- **You may be told to stop taking your diabetes medications before surgery, depending on what you are taking.** Or you may need to switch to a different medication or adjust your dose.



Before surgery

The American Diabetes Association recommends the following:

- Reach a target blood glucose level of 80 to 180 mg/dL.
- Be examined for other health conditions, such as:
 - Coronary artery disease
 - Damage to the nerves that control bodily functions like breathing
 - Kidney failure
- STOP taking metformin or any other glucose management pills on the day of your surgery. Instead, you will need to take insulin. For example, you might need:
 - A half dose of intermediate-acting (NPH) insulin

OR

- A lower dose (60% to 80%) of long-acting or basal (pump) insulin
- Monitor your blood glucose every 4 to 6 hours while fasting and dose with rapid-acting insulin as needed.
- Follow all instructions for eating, drinking, and dosing from your doctor or diabetes educator, even if they are different from the instructions on this handout.

Getting ready for surgery

Before you set a date for your surgery, contact the doctor who guides your diabetes treatment. Discuss how to get your diabetes in the best possible control in the weeks before your surgery.

1 week before your surgery:

- Test your blood glucose before each meal and at bedtime, if you don't already. Discuss your target values with your doctor:
 - My pre-meal target: _____
 - My bedtime target: _____
- Get a plan from your diabetes doctor or educator on how to manage your insulin and/or medication doses on the DAY of your surgery.
- Follow your diabetes treatment plan faithfully, and write everything down. 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:

- Refer to your "Day of Surgery Plan" for all 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 2 treatments, call the doctor who cares for your diabetes.
 - If it's high (more than 180 mg/dL), refer to your "Day of Surgery Plan."
- When you go in for your surgery, be prepared to provide your surgery team with the information they need from the last few days and hours before your surgery, including:
 - Your blood glucose readings
 - Everything you've been eating and drinking
 - Any medications you have taken. Include all prescription and over-the-counter medicines, patches, inhalers, vitamins, herbal remedies, marijuana, or street drugs.

Special instructions:

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