

Using a Temporary Basal Rate

A basal rate is the amount of insulin, measured in units per hour, that a pump delivers for needs unrelated to food or correction over a 24 hour period. When basal rates are set correctly, blood sugars should be in target range before meals and overnight. Ideally blood sugars should remain within a normal range if you miss or delay a meal. Most pump users have 2 to 4 different basal rates over a 24 hour period to allow for different insulin needs at different times of the day.

What is a Temporary Basal Rate?

A temporary basal rate allows you to change the level of your background (basal) insulin for a set period of time from 30 minutes to 24 hours. You can use a temporary basal rate when you need to take more or less insulin than usual.

When Should I use a Temporary Basal Rate?

Temporary basal rates are used most commonly during exercise, on sick days, or when you are feeling stressed, as all of these situations can change your insulin needs. During exercise you may need to set a lower temporary basal rate since your body becomes more sensitive to insulin both during and after. Stress and illness can cause your body to become more resistant to insulin and you may need to set a higher temporary basal rate.

How do I set a Temporary Basal Rate?

A temporary basal rate can be set either as a specific number of units of insulin or as a percentage of your current basal rate. Using a percentage is often easier to understand and set up. Speak with your healthcare provider about settings that might work best for you.

Settings for Exercise:

When you are planning on doing aerobic activities there are 3 ways to manage the drop in blood sugar often seen. You can decrease the amount of insulin, increase your carbohydrate intake, or use a combination of both. When reducing insulin, a basal rate can be reduced before, during, and after exercise. This may be used alone or in addition to a reduction to the bolus for the meal prior to exercise, as well as extra food intake.

Prior to exercise:

Set a 20-50% basal rate reduction to start 1.5-2 hours before the start of activity.

During exercise:

Run a 20-50% basal rate reduction for the duration of the exercise for activity lasting more than 1-2 hours.

After exercise:

You may need to continue your temporary basal rate at 10-50% for up to 24 hours after activity is finished. This is because liver/muscle cells must replenish sugar stores that are used up during exercise. This process can take up to 24 hours.