

# Take the T1D Challenge!

Find out if you are tough enough to handle Type 1 Diabetes!

Imagine you have been diagnosed with Type 1 Diabetes. For the next 24 hours you will have to manage your diabetes as Liam does every day.

Follow the schedule below.

Make sure that every time “Blood Glucose Check,” “Administer Insulin,” “Check Urine for Ketones” or “Change Infusion Set” is indicated, you give yourself a “firm pinch” on the inside of your arm.

The next 24 hours will be difficult, inconvenient and painful. Unlike Liam, you will only have to deal with diabetes for one day. This is a typical day for Liam. While some days are more difficult, none are easier. It is impossible to simulate Liam’s true experience with diabetes, but we hope this exercise helps you understand the challenges of living with diabetes and motivates you to support our mission to find a cure.

Time	Action
6:00 a.m.	Blood Glucose Check (Reading 189) Eat Breakfast (Calculate carbohydrate grams – read label) Administer Insulin (units determined by carbohydrate:insulin ratio) Change Infusion set
10:30 a.m.	Blood Glucose Check (Reading 176)
12:30 p.m.	Blood Glucose Check (Reading 95) Eat Lunch (Calculate carbohydrate grams – read label) Administer Insulin (units determined by carbohydrate:insulin ratio)
3:00 p.m.	Blood Glucose Check (Reading 267) You feel sluggish, irritable, & thirsty. Administer Insulin (to correct high blood sugar) Eat Snack (Calculate carbohydrate grams – read label) Administer Insulin (units determined by carbohydrate:insulin ratio) Check Urine Ketones (mild ketones detected) Drink extra fluids to flush ketones from system
6:00 p.m.	Blood Glucose Check (Reading 156) Eat Dinner (Calculate carbohydrate grams – read label) Administer Insulin (units determined by carbohydrate:insulin ratio)
9:00 p.m.	Blood Glucose Check (Reading 54) You feel shaky and light-headed. Have juice and suspend insulin delivery to bring BG up
9:15 p.m.	Re-check Blood Glucose Reading (92) Resume insulin delivery Eat Snack (Calculate carbohydrate grams – read label) Administer Insulin (units determined by carbohydrate:insulin ratio)
3:00 a.m.	Blood Glucose Check (Reading 315) You are experiencing a “rebound high blood glucose” which is a result of the low blood glucose at 9:00 p.m. Administer Insulin to reduce high blood glucose Check Urine Ketones (no ketones detected) Now go back to sleep!

## Some additional information

Your goal is to keep your blood glucose in a “safe” range of 70-180.

Readings less than 60 are considered too low and leave you in danger of seizure or unconsciousness.

At 240 or higher, you must check for urine ketones. Ketones are the result of the body burning fat instead of glucose for energy. Sustained readings over this number can lead to “diabetic keto-acidosis,” which requires hospitalization. Complications like heart disease, kidney failure, blindness and neuropathy (amputation) are the result of sustained high blood glucose.

#### Brain Function:

When your blood glucose is too low or too high, your ability to think clearly is compromised. For this reason, you must check your blood glucose before taking any academic tests. If you are out of range, you will have to wait until your blood glucose returns to the “safe” range to take your test.

#### Exercise:

Blood glucose is reduced by physical exercise. You must check your blood prior to taking gym class or attending any sports practice/game. If your blood glucose is under 100, you must eat a snack prior to exercising. Should your blood glucose drop under 60, at anytime during physical activity, you must stop exercising and treat your blood glucose. You should not return until your blood glucose is in range. Blood glucose can remain suppressed for up to 24 hours after any sustained physical activity.

#### Stress:

Blood glucose is also affected by stress. If you are excited, your blood glucose will go down. Bad stress or anxiety will increase your blood glucose.

#### Illness:

Blood glucose is also affected by illness. A mild head cold may cause your blood sugar to run higher than normal. A severe flu can cause low blood glucose and rapid dehydration. Having the flu is very dangerous for someone with diabetes.

#### Growth:

Blood glucose is also affected by growth. During adolescence the body experiences frequent periods of rapid growth and increased hormone production. Unexplained fluctuations in blood glucose are experienced as a result.

As you can see from this experiment, managing diabetes is very difficult and requires constant attention. Simply replacing the insulin the body no longer makes, does not result in controlled blood sugar. Insulin is a treatment, not a cure. After participating in this experiment, we hope you have a greater understanding of what those living with diabetes deal with on a daily basis, until a cure is found.