

## Sick Day Management / Ketone Management

Ketone formation occurs when your body burns fat to use as energy. This happens when there is not enough insulin in the body. Ketones can make you sick. If not treated, it can cause severe illness and DKA.

### When should I check my ketones?

- When you have 2 unexplained blood glucose levels > 300 mg/dl.
- If you are sick, running a fever and/or vomiting.
- If your insulin pump failed.
- If you missed your long-acting insulin.

### How to treat ketones and high blood sugars

Urine Ketones	Blood Ketones	What to do?	Blood sugars
Negative	0 mmol/L	Nothing. Continue with normal routine and activity.	If blood sugars are above target, give rapid acting insulin per your correction factor every 3 hours until blood sugars return to normal range.
Trace or Small (15 mg/dL)	< 0.6 mmol/L	Drink extra water. Recheck urine ketones and blood glucose level in 3 hours.	If blood sugars are above target, give rapid acting insulin per your correction factor every 3 hours until blood sugars return to normal range.
Moderate (40 mg/dL)	0.6-1.5 mmol/L	Give 5-10% of your basal dose as rapid acting insulin to treat ketones <b>PLUS</b> correction insulin.  Recheck blood sugar and urine ketones every 3 hours. Repeat ketone coverage as needed until urine ketones are trace to small. Drink extra fluids. No exercise.  Call your endocrinologist if you are unsure or have questions.	If blood glucose levels are above your target range, give rapid acting insulin per your correction factor every 3 hours until blood sugars return to normal range.
Large (80 mg/dL)	1.6-3.0 mmol/L	Give 10% of your basal dose as rapid acting insulin to treat ketones <b>PLUS</b> correction insulin.  Recheck blood sugar and urine ketones every 3 hours. Repeat ketone coverage as needed until urine ketones are trace to small. Drink extra fluids. No exercise.  Call your endocrinologist if you are unsure or have questions.	If blood glucose levels are above your target range, give rapid acting insulin per your correction factor every 3 hours until blood sugars return to normal range.
Extra Large (>80 mg /dL)	> 3.0 mmol/L	You may need to go to the ER, especially if you are having difficulty breathing, lethargy, abdominal pain, vomiting. Please call your endocrinologist immediately for advice. If patient becomes unresponsive call 911 immediately.	