

Name: _____

DOB: _____

Date of visit: _____

Weight: _____

Diabetes Sick Day Action Plan - Pump

Ketones are caused by lack of insulin.

1. CHECK KETONES IF

- ✓ Blood sugar is above 300 mg/dl
- ✓ Blood sugar is below 300 mg/dl but you are sick – vomiting, fever, stomach pain

2. FIND YOUR KETONE ZONE BELOW.

<p>Green Zone:</p> <ul style="list-style-type: none"> • Urine ketones – negative or trace • Blood ketones – less than 0.6 		<p>Drink lots of sugar free fluids, Drink _____ per hour - (at least 1 oz for each year of age every hour, example: a 5 year old should drink at least 5 oz every hour).</p> <p>Continue checking blood sugar every 2 hours and ketones every time you pee while you are sick or your blood sugar is above 300 mg/dl.</p>
<p>Yellow Zone: Watch Out!</p> <ul style="list-style-type: none"> • Urine ketones –small • Blood ketones – 0.6-1.4 		<p>Keep usual basal rate(s) running and continue to give boluses according to your usual scale. Boluses may be given through pump as usual.</p> <p>Consider changing your pump site, especially if blood sugar does not come down within 2 hours of an insulin bolus</p>

If you have vomiting for more than 2 hours or blood sugars less than 100 and are not eating/drinking well call your doctor.

<p>Red Zone: Danger!</p> <ul style="list-style-type: none"> • Urine ketones – moderate or large • Blood ketones – 1.5-3.0 		<p>My Sick Day Diabetes Regimen</p>		
<p>Change your pump site. Give all boluses by syringe until you are in the Green Zone.</p>		MEDICINE:	MY DOSES:	WHEN:
Basal Insulin		Total Daily Basal		Give as Lantus if pump is not working.
Rapid Acting Insulin		(10% TDD + usual correction) _____ + Blood sugar correction		Every 2 hours if blood sugar is above 200mg/dl. If eating, add to carb dose.
<p>Check blood sugar and ketones every 1-2 hours.</p>				
<p>Drink lots of sugar free fluids (see above). If blood sugar is less than 250 mg/dl then include 15 grams of sugar containing fluids (Gatorade, juice, soda, etc.) every 1-2 hours.</p>				

If ketones do not decrease after 2 Red zone insulin doses, you have vomiting for more than 2 hours, your blood sugar is less than 100 or other concerning symptoms – CALL YOUR DOCTOR right away.

<p>STOP: High risk of diabetic ketoacidosis!</p> <ul style="list-style-type: none"> • Blood ketones – more than 3.0 • Fast or abnormal breathing • Weak or difficult to awaken • Chest pain or severe headache • Appears confused 		<p>CALL YOUR DOCTOR RIGHT AWAY! Phone Number of Doctor/Nurse Day : 314-454-6051 Night : 314-454-6000 Ask for Diabetes Doctor on call</p>		
		<p>If unable to wake your child or if child appears very weak, call 911 immediately</p>		

Time for Practice:

1. It's noon and you're about to eat lunch. Blood sugar is 380. You check ketones, and they are large. What do you do?

2. It's 2pm. You are not going to eat. You recheck your blood sugar. Now it's 280. You still have moderate ketones. What do you do?

3. It's 4pm. You are not going to eat. You recheck your blood sugar and ketones. What do you do if:

a. Blood sugar 180, trace ketones?

b. Blood sugar 180, moderate ketones?

c. Blood sugar 220, moderate ketones?

Frequently Asked Questions:

What are ketones?

Ketones are an acid made by the body from breaking down fat when sugar cannot be used for energy. This happens when there is not enough insulin in the body.

How does DKA (Diabetic KetoAcidosis) start?

If the body doesn't get the insulin it needs, then the ketone (acid) level in the blood begins to go up. You can first know that your child is at risk for DKA if there are ketones in the urine or if blood ketones are high. If the body does not get enough insulin then ketones go higher until the blood becomes very acidic and your child gets very sick.

What are the main causes of Ketones or DKA?

- Forgetting your insulin.
- Using expired or "spoiled insulin" (insulin got too hot or frozen)
- Illness
- Not enough insulin
- Insulin pump not working

Why I may need extra insulin when sick:

Illness, when accompanied by fever or vomiting, is stressful on the body. Illness can raise your blood sugar because the body needs extra energy to get through the stressful situation. Blood sugars go up because stress hormones, (growth hormone, cortisol, epinephrine and glucagon) go up with illness. These hormones help the body to release stored sugar from the liver to give the body extra energy to overcome illness or stress. In someone without diabetes, the pancreas makes extra insulin to work with the extra sugar and helps the body's cells get the energy they need.

In a child with diabetes, on sick days stress hormones are released and cause the liver to make extra sugar to give the body extra energy. However, the child with diabetes cannot produce the extra insulin needed for this extra sugar. Even without eating, your child's blood sugar will often go up when he/she is sick. Because the child with diabetes cannot make extra insulin, the body often begins to make ketones because it is not able to use the extra sugar from the liver.

Extra insulin is need both to keep the blood sugar within range and to keep ketones down.

Why do I need to drink extra fluids when blood sugars are elevated?

Someone with elevated blood sugars will pee more often and can quickly become dehydrated. It is important to replace these lost fluids to prevent dehydration.