Ketones are chemicals that appear in your urine when fat & muscle are broken down for energy.

★ This happens when there is not enough insulin to allow the sugar to be burned for energy needed by your body.
★ Ketones also are formed when you don't eat enough food to provide for your body's energy needs.
★ When ketones are moderate or larger, your diabetes care provider should be notified.
★ Ketoacidosis is the number one reason for hospitalizing children in the U.S. with known diabetes.
★ Ketones block the normal sensitivity of your body to insulin.

Ketones should be checked when your blood sugar is above 250 or ANYTIME you feel sick or nauseated.

Causes: 1. **illness** (In illness extra energy may be needed by your body)
2. **not enough insulin**
3. **growth spurts**
4. **bad insulin**

When you are sick, you can have KETONES even if your blood sugar is NOT high.

Ketones appear in your urine about 4 hours before your total body's acidity is increased (acidosis).

Acidosis can be prevented
★ Check blood sugar hourly until control regained
★ Take extra insulin -- *Ketones block* normal *sensitivity* of your body to insulin.
Insulin shuts off ketone production
★ Drink fluids -- replace fluid lost in urine, help prevent dehydration
★ If nausea and vomiting or unable to take fluids call doctor and go to E.R.

When the body becomes more acidic, many of your body's enzymes for metabolism can no longer work effectively.
Potassium & sodium are lost in the urine when ketones are present.
Take OJ, apple juice or bananas.

Symptoms of acidosis
1. **Tiredness or drowsiness**
2. **Thirst & frequent urination**
3. **Dry skin**
4. **Sweet or fruity odor to your breath**
5. **Upset stomach &/or stomach pain**
6. **Vomiting**
7. **Shortness of breath**
8. **Rapid or deep breathing – go to ER**
9. **If not treated -- coma**

Best to change your infusion sites in the AM --
If you change it at night, set an alarm for 3 hours to check your blood sugar
to make sure you have no problems with insulin delivery.