



## EDUCATION BULLETIN #9: MANAGEMENT OF SICK DAYS IN YOUNG PEOPLE WITH TYPE 1 DIABETES

For further reading, please refer to [Chapter 13, ISPAD Guidelines 2014](#)

Many illnesses, especially those associated with fever, raise blood glucose levels because of the effect of stress hormones. The increased insulin resistance can increase ketone production.

Illnesses with gastrointestinal symptoms (e.g. diarrhoea and vomiting) may lead to lower blood glucose levels and hypoglycaemia due to reduced food intake and poor absorption.



Sick day management should always be included in the education of the child and family, and then reinforced at regular intervals.

### KEY POINTS:

1. **DO NOT STOP INSULIN** during sick days, even though the child is ill and not eating normally. Insulin may need to be increased or decreased, based on the blood glucose level and food intake – SEE BELOW.
2. If home monitoring isn't available, the child should be taken to a healthcare facility for regular testing. **Small children become dehydrated very quickly.** Check weight to assess dehydration.
3. Treat the acute illness: treat fever with anti-pyretics
4. Increase monitoring of blood glucose levels to 3–4 hourly (and more frequently if the glucose level fluctuates widely or changes rapidly), however, this is obviously dependent on availability of test strips.
5. Monitor urine/blood ketones 1-2 times per day if possible.
6. Give sugary fluids and water. If the child has no appetite, give small amounts of fluids frequently if child is vomiting.  
**When vomiting occurs in a child with diabetes, it should always be considered a sign of insulin deficiency (impending ketoacidosis) until proven otherwise.**
7. If blood glucose is high with trace of ketones, give: 5-10% of total daily dose of insulin (or 0.05-0.1 U/kg) as short or rapid-acting insulin repeated every 2-4 hours.
8. If blood glucose is high with moderate or large amount of ketones, give: 10-20% of total daily dose of insulin (or 0.1 U/kg) as short or rapid-acting insulin (if available) repeated every 2-4 hours.
9. If blood glucose is low with ketones, (starvation ketosis) more sugary drink is needed before extra insulin can be given.
10. Avoid strenuous exercise.