

Hyperglycemia and Insulin Pump Therapy

What is it?

Hyperglycemia, or high blood sugar, is typically when your blood sugar level is above 14 mmol/L.

Why does this happen?

Hyperglycemia occurs when sugar cannot enter your cells and builds up in the blood.

<h3>Causes of hyperglycemia</h3> <ul style="list-style-type: none"> • Excessive exercise without sufficient insulin • Increased stress • Illness • Underestimated carbohydrate intake • Not enough insulin for food eaten or for correction • Basal rate too low or inappropriate temporary basal rate set • Pump cartridge is empty • Infusion set or site failure • Too long between infusion set changes • Suspended pump • Pump failure/failure to reconnect pump • Medications (e.g. Corticosteroids) 		<h3>How to treat hyperglycemia</h3> <ul style="list-style-type: none"> • If applicable, verify all CGM readings with a BG meter before making any treatment decisions • Immediately take a correction bolus with the insulin pump • Recheck your BG in 1 hour. If your glucose reading is not falling reasonably do the following: <ul style="list-style-type: none"> - Take an injection of fast acting insulin with a syringe/pen (not through the pump). The amount should be the same as if you were taking a correction bolus. - Check for ketones and call your health care provider if ketones are present. - Change your infusion site (cannula), tubing, and reservoir or your pod. - Recheck your blood glucose in 1 hour. If your glucose still fails to come down, call your health care provider immediately. - Continue all boluses by manual injection and continue to check your glucose every 2 hours and ketones every 4 hours until hyperglycemia is resolved.
<h3>Symptoms of hyperglycemia</h3> <ul style="list-style-type: none"> • Increased thirst • Frequent urination • Fatigue • Headache • Blurred vision 	<h3>Symptoms of DKA</h3> <ul style="list-style-type: none"> • Nausea • Vomiting • Abdominal pain • Difficulty breathing • Fruity smelling breath 	

Diabetic Ketoacidosis (DKA):

DKA usually occurs only in Type 1 diabetes. If you have a high level of sugar in your blood and a low level of insulin, your body cannot use the sugar to produce energy. Instead your body will break down fats and produce substances called ketones. Excess ketones in your blood can make your blood acidic and cause serious symptoms. If left untreated the excess ketones can cause DKA, which can lead to coma or death. DKA is a **medical emergency and should be treated in a hospital**. Following hyperglycemia guidelines and checking your blood sugars frequently can help prevent DKA.