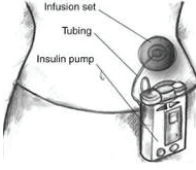


Insulin Pump Terminology

Key Message: “If pump stopped, must replace basal insulin within 2 hours to prevent Diabetic Ketoacidosis (DKA)”

<p>Continuous subcutaneous insulin infusion (CSII) pump (also known as insulin pump)</p> 	<p>A battery operated programmable device that delivers only rapid-acting insulin 24 hours a day. The insulin is held in a reservoir and is delivered through a removable soft cannula (or needle) inserted into the subcutaneous layer of the skin, which is changed every 48-72 hours, or sooner as needed. With most pumps, this cannula is connected to a plastic tubing (infusion set) that is attached to the pump where the insulin is held. Other pumps use an insulin-containing pod taped directly to the skin (the pod holds the insulin and a handheld device is used for programming the pump). The insulin pump is programmed to deliver basal and bolus insulin.</p>
<p>Basal rate/basal insulin infusion</p>	<p>The pump delivers small amounts of insulin in a continuous fashion. This continuous background insulin infusion is measured in units/h. Rates are variable and differ between individuals and differ across a 24-h period within the same individual. Some individuals have different basal profiles for different times or activities (e.g. work vs. non-work days, exercise, illness, etc.). <u>Only rapid acting insulin is used in the pump. There is no long or intermediate-acting insulin used in the pump.</u></p>
<p>Bolus insulin</p>	<p>This is the amount of insulin given for a meal or snack. The patient determines this dose based on the estimated amount of carbohydrates to be consumed for that meal/snack and is calculated from their individual Insulin:Carbohydrate ratio (ICR). EXAMPLE: ICR 1:10 = 1 unit of insulin/10g of carbohydrate</p>
<p>Correction insulin <i>(and Insulin Sensitivity Factor)</i></p>	<p>The anticipated amount of insulin needed to correct for hyperglycemia. This is based on the Insulin sensitivity factor (ISF). Individualized ISF allows calculation of a correction dose expected to reduce glucose by X mmol/L EXAMPLE: ISF = 2.5, 1 unit of insulin should reduce glucose by 2.5 mmol/L</p>
<p>Continuous Glucose Monitoring System (CGM)</p>	<p>Some pumps have the ability use a CGM, which is able to:</p> <ol style="list-style-type: none"> 1) Assess interstitial glucose every 5 min 2) Alert the user of high or low glucose readings 3) Alert the user of rapid changes in glucose 4) Temporarily suspend insulin delivery if a low glucose alert does not result in user acknowledgement (available with Medtronic pump) <p>This technology is rapidly growing and changing. At the present time and for most CGM available, the glucose readings provided are used to prompt capillary glucose testing and rate of change indicators can aid user in insulin self-adjustment. Currently this technology does not eliminate the need for confirmation of glucose by capillary testing prior to insulin adjustment for most CGM available. CGM may be in use without the alert or suspend features enabled.</p>