










# Automated Insulin Delivery in Pregnancy










Suggested systems and settings during pregnancy

Whenever possible, [experts recommend](#) using an AID system that **1)** has been studied in a large randomized controlled trial of pregnant people; **2)** has been shown to increase time in pregnancy range (aka ‘TIRp’: 63–140 mg/dL or 3.5–7.8 mmol/L) by at least 5% daily; and **3)** has ability to adapt to insulin sensitivity changes in pregnancy.

If one of these systems is not accessible, the suggestions below can help optimize use of other AID systems for pregnancy management as best as possible. For information on suggested settings in labor and delivery, see this accompanying guide.

System Name	RCT Evidence in Pregnancy?	Evidence of +5% TIRp Benefit	Adaptable Settings	Recommended Settings & Use Use with support from an experienced health care team
 <p><b>CamAPS FX®</b> (algorithm used with YpsoPump®, DANA Diabecare RS® and DANA-i® insulin pumps) Note: not currently available in the U.S.</p>		 Mean adjusted difference of +10.5% TIRp compared to standard insulin therapy + CGM <sup>1</sup>	<ul style="list-style-type: none"> <li>• Customizable glucose target as low as 80 mg/dL (4.4 mmol/L)</li> <li>• Adjustable insulin:carb ratios</li> <li>• Boost Mode (temporarily increases insulin delivery by approximately 35% until target is reached)</li> </ul>	<ul style="list-style-type: none"> <li>• Set target glucose to 99mg/dL (5.5 mmol/L) before 16 weeks gestation; 80–90 mg/dL (5.0 mmol/L) from 16 weeks until delivery</li> <li>• Overnight targets of 80 mg/dL (4.5 mmol/L) may be applicable from 22:00–06:00 hr, from 20 weeks gestation</li> <li>• Use Boost mode as needed for 2–4 hrs after larger meals starting at 20 weeks gestation</li> <li>• Update weight every trimester during pregnancy, as needed</li> <li>• Bolus 10–15min before meals throughout pregnancy</li> </ul>
 <p><b>Diabeloop®</b></p>			<ul style="list-style-type: none"> <li>• Customizable glucose target as low as 99 mg/dL (5.5 mmol/L)</li> <li>• Aggressiveness setting (allows algorithm to adjust correction boluses in hyperglycemia, basal when in range, and bolus amounts at meals)</li> </ul>	<ul style="list-style-type: none"> <li>• Set target glucose to 99mg/dL (5.5 mmol/L)</li> <li>• Increase aggressiveness setting for high glucose, in-range levels, and at meals as needed</li> </ul>
 <p><b>iLet</b></p>			<ul style="list-style-type: none"> <li>• Customizable glucose target as low as 110 mg/dL (6.1 mmol/L) (options are listed as “lower”, “usual”, and “higher”)</li> </ul>	<ul style="list-style-type: none"> <li>• Set “lower” target glucose: 110 mg/dL (6.1 mmol/L)</li> <li>• Update weight in pump to reflect weight gain during pregnancy</li> </ul>

<sup>1</sup>Lee TTM, et al. *N Engl J Med.* 2023;389(17):1566-1578. doi:10.1056/NEJMoa2303911






System Name	RCT Evidence in Pregnancy?	Evidence of +5% TIRp Benefit	Adaptable Settings	Recommended Settings & Use Use with support from an experienced health care team
 <p><b>MiniMed 670 or 770G</b></p>	 (Small pilot trial) <sup>2</sup>		<ul style="list-style-type: none"> <li>• Non-customizable glucose target of 120 mg/dL (6.7 mmol/L)</li> <li>• Can set a temporary target of 150 mg/dL (8.3 mmol/L)</li> <li>• Adjustable insulin:carb ratios and active insulin time</li> </ul>	<ul style="list-style-type: none"> <li>• Set active insulin time to 2 hours</li> <li>• Set bolus increment to 0.025 U</li> </ul>
 <p><b>MiniMed 780G**</b></p>		 Demonstrated increase in overnight TIRp only <sup>3</sup>	<ul style="list-style-type: none"> <li>• Customizable glucose target as low as 100 mg/dL (5.5 mmol/L)</li> <li>• Can set a temporary target of 150 mg/dL (8.3 mmol/L)</li> <li>• Adjustable insulin:carb ratios and active insulin time</li> </ul>	<ul style="list-style-type: none"> <li>• Set target glucose to 100 mg/dL (5.5 mmol/L)</li> <li>• Set active insulin time to 2 hours</li> <li>• Set bolus increment to 0.025 U</li> <li>• If algorithm reduces meal bolus ('Safe Meal Bolus') when strengthening insulin-to-carb ratios, then relax ratios and add extra "fake carbohydrates" with meals</li> <li>• Bolus 10-15 minutes before meals; more as needed later in pregnancy</li> </ul>
 <p><b>Omnipod 5</b></p>			<ul style="list-style-type: none"> <li>• Customizable glucose target as low as 110 mg/dL (6.1 mmol/L) (<i>Note: Lower target of 100 mg/dL to become available in the US in the first half of 2026</i>)</li> <li>• Adjustable insulin:carb ratios, insulin sensitivity/correction factor, and active insulin time</li> </ul>	<ul style="list-style-type: none"> <li>• Set glucose target to 110 mg/dL (6.1 mmol/L) or 100 mg/dL if available.</li> <li>• Use shorter active insulin time (2-3 hours)</li> <li>• In 2<sup>nd</sup> and 3<sup>rd</sup> trimesters, use more intensive correction factors</li> <li>• Turn off reverse correction</li> <li>• Many additional correction doses are likely to be needed; especially after meals, If glucose &lt;110 and the glucose arrow is trending down, manually enter the glucose value to avoid automatically reduced meal-time boluses</li> <li>• Use manual mode overnight as needed to reach fasting glucose targets</li> </ul>

<sup>2</sup>Polsky S, et al. *Diabetes Technol Ther.* 2024;26(8):547-555. doi:10.1089/dia.2024.0012

<sup>3</sup>Benhalima K, et al. *Lancet Diabetes Endocrinol.* 2024;12(6):390-403. doi:10.1016/S2213-8587(24)00089-5

System Name	RCT Evidence in Pregnancy?	Evidence of +5% TIRp Benefit	Adaptable Settings	Recommended Settings & Use Use with support from an experienced health care team
<p><b>t:slimX2 or Mobi with Control-IQ or Control-IQ+ technology*</b></p>		<p>Mean adjusted difference of +12.5% TIRp compared to standard insulin therapy + CGM<sup>4</sup></p>	<ul style="list-style-type: none"> <li>• Target glucose range of 112.5–160 mg/dL (6.25–8.9 mmol/L); corrections calculated based on target of 110 mg/dL (6.1 mmol/L)</li> <li>• Sleep Activity mode, which narrows target glucose range to 112.5–120 mg/dL (6.25–6.7 mmol/L) and strengthens automated basal insulin delivery, but pauses automatic correction boluses</li> <li>• Exercise Activity mode, which raises target glucose to 140–160 mg/dL (7.8–8.9 mmol/L)</li> <li>• With Control-IQ+, can ‘extend’ bolus up to 8 hours after entry and set temporary basal rates without having to pause automation</li> <li>• Adjustable basal rates, insulin:carb ratios, and insulin sensitivity/correction factor</li> </ul>	<ul style="list-style-type: none"> <li>• Use Sleep Activity mode throughout day and night</li> <li>• Do not accept prompt to reduce bolus when glucose is under 110 mg/dL (6.1 mmol/L)</li> <li>• Strengthen insulin-to-carb ratios, basal settings, and correction factor throughout pregnancy:             <ul style="list-style-type: none"> <li>◦ Prior to 20 weeks, program basal rates to add up to approximately equal average automated daily basal insulin delivery in the previous 1–2 weeks.</li> <li>◦ After 20 weeks, program basal rates to add up to be ~20% higher than average automated daily basal insulin delivery in the previous 1 to 2 weeks.</li> <li>◦ Ensure correction factor is at least as strong as 1620mg/dL (90 mmol/L) divided by average total daily insulin use in the last 1-2 weeks</li> </ul> </li> <li>• Bolus 10-15min before the meals throughout pregnancy, or up to 30-45 min before meals as needed later in pregnancy</li> </ul>

<sup>4</sup>Donovan LE, et al. JAMA. 2025;334(24):2176-2185. doi:10.1001/jama.2025.19578

System Name	RCT Evidence in Pregnancy?	Evidence of +5% TIRp Benefit	Adaptable Settings	Recommended Settings & Use Use with support from an experienced health care team
 <p><b>twiist (with Loop algorithm)</b></p>			<ul style="list-style-type: none"> <li>• Customizable target glucose between 87–180 mg/dL (4.8–10.0 mmol/L); can set schedule of various targets</li> <li>• “Pre-Meal Preset” increases insulin delivery before meals by lowering target (as low as 67 mg/dL [3.72 mmol/L]) to help with postprandial glucose rises</li> <li>• Customizable “Workout Preset” adjusts insulin before workouts to help prevent lows</li> <li>• Choose emoji with meal bolus to prompt algorithm to adjust for carb absorption rates</li> <li>• Adjustable basal rates, insulin:carb ratios, and sensitivity/correction factor</li> </ul>	<ul style="list-style-type: none"> <li>• Set daytime glucose target of 90-99 mg/dL (5.0–5.5 mmol/L) before 16 weeks gestation. If glucose variability is low, a nighttime target of 90 mg/dL (5.0 mmol/L) or less can be considered. After 16 weeks, consider lower targets.</li> <li>• Consider using Pre-Meal Preset up to an hour before eating and/or pre-bolus before eating; note that bolusing shuts off the lower pre-meal target</li> <li>• Consider using the Food Type selection (30 minute absorption time) for pre-meal boluses after 16 weeks.</li> </ul>
<p><b>Open-source systems (such as AndroidAPS and Loop)</b></p>			<p>See twiist features above (uses version of Loop algorithm)</p> <ul style="list-style-type: none"> <li>• Fully customizable glucose targets</li> <li>• Programmable custom temporary override settings for future use. For example post-meal high of 120–130% for 2–3 hours.</li> </ul>	<p>See twiist settings above (uses version of Loop algorithm)</p> <ul style="list-style-type: none"> <li>• Liberally use post-meal high custom override</li> <li>• Learn about new system features and review system-specific training modules or resources prior to implementing new feature updates</li> </ul>

Updated 3.20.26. System availability and algorithm features differ across regions, due to differing regulatory systems and other regional factors. Information adapted from [Benhalima & Polsky \(2025\)](#) and subject to change. For more detailed information, please reference the international consensus statement on CGM + AID in pregnancy ([Benhalima et al. 2026](#))