Diabetes in Pregnancy: Insulin Pump Brand Considerations

It's important to talk to your diabetes team before deciding on an insulin pump brand. Diabetes Canada recommends Automatic Insulin Delivery (AID) insulin pumps for people with type 1 diabetes. These pumps work with glucose sensors to adjust some of your insulin doses automatically. Each brand has different features that may help you reach the **lower glucose targets needed in pregnancy** for your baby's health**.** During pregnancy, blood sugar targets are tighter (3.5 – 7.8 mmol/L). Automated insulin delivery (AID) pumps can help some people achieve more time in range compared to standard therapy.

No matter the insulin pump brand you choose, your Diabetes in Pregnancy Team will help you optimize your diabetes control.

Considerations for AID Insulin Pump Choices in Pregnancy

AID Pump Brand:	**Research:** Additional time at pregnancy target on AID pump compared to standard therapy.	**Brand considerations with respect to pregnancy needs:**		
		Quick dosing changes are needed throughout pregnancy. Consider responsiveness of the pump.	Lower glucose targets are required in pregnancy. Consider the lowest target available in pump.	Large amounts of insulin are needed as pregnancy progresses. Consider impact of reservoir size.
Tandem	3 more hours/day (1)	Immediate response to changes in basal rates, ISF, and CR. (Not a learning algorithm.)	6.25-6.7 mmol/L	300 unit reservoir
Ypsopump	2.5 more hours/day (2,4)	Immediate response if using "Boost", "Ease Off" or changing CR. Slower changes to basal insulin and ISF. (Learning algorithm)	4.4 mmol/L	160 unit reservoir
Medtronic	24 more minutes/day (3,4)	Immediate response if changing CR. Slower changes to basal insulin and ISF. (Learning algorithm).	5.5 mmol/L	300 unit reservoir
Omnipod 5	No control trials in pregnancy. Currently few case reports.	Immediate response if changing CR and ISF. Slower changes to basal insulin. (Learning algorithm).	6.1 mmol/L	200 unit reservoir

Open-Source DIY AID (Self-built systems not approved by Health Canada. No companies provide support.)	No control trials in pregnancy. Small observational studies only. (5,6,7)	Immediate response to changes in basal rates, ISF, and CR. (Not learning algorithms.)	4.0 mmol/L	200 unit or 300 unit reservoirs depending on device set-up.
CR = Carbohydrate Ratio; ISF = Insulin sensitivity factor or correction factor				

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