

Diabetes in Pregnancy (DiP): SOP bcdiabetes.ca

See [Diabetes Canada Clinical Practice guideline](#) - [this two pager](#) summarizes the document below.

Care of patients with Type 1 and Type 2 diabetes in pregnancy (DiP) requires specific knowledge, pregnancy-specific glucose targets, coordination with the patient's other providers, and frequent reviews throughout pregnancy. If the patient does not have a specific reason to attend BCDiabetes (e.g. Looping), **they should consider basing their DiP care at their local maternity hospital diabetes clinic for the duration of their pregnancy.** This will mean their diabetes & OB care is coordinated within a multidisciplinary health care team.

The candidates who may consider DiP care at BCDiabetes (which does not have direct links with maternity care providers) are those meeting the following criteria:

- Age < 35 years
- No diabetes complications such as CKD/albuminuria
- No chronic hypertension / renal disease / autoimmune diseases that significantly increase pre-eclampsia risk e.g. SLE
- No history of major obstetric complications (e.g. pre-term pre-eclampsia, IUGR, previous congenital anomaly, IUFD)
- No other significant medical conditions that require active management during pregnancy (e.g. epilepsy, venous thromboembolism)
- Routine antenatal care is being undertaken through family practice and/or community/ regional hospitals
- No requirement for the more extensive multidisciplinary / allied health supports associated with hospital diabetes clinic e.g. social worker
- If patient is from out-of-province, they must have an endocrinologist in their own province who is supporting their DiP care and collaborating with BCDiabetes

For patients anticipated to have an especially high-risk pregnancy (e.g. those with existing diabetes complications, prior history of obstetric complications or other comorbidities), the close links between diabetes care and OB care are even more important. They may require more frequent high-risk obstetrician input, maternal fetal medicine, etc. Their DiP care should **preferably be based at a maternity hospital.** BCDiabetes should only be involved in their care on a case-by-case basis in discussion with other care providers, with arrangements made for shared care (e.g. for Looping).

Preconception management:

Target A1c ≤6.5%. Recommend deferring pregnancy if appropriate until this target is reached.

Target healthy weight. [Low carb diet not recommended.](#)

CGM in all T1D patients (ideally in T2D also). If T1D unable to afford CGM, pursue any available coupons/vouchers etc as this is a highly effective intervention for T1D pregnancy. Change CGM “display range” to pregnancy targets 3.5-7.8mmol/L in DPD NS tab. Aim 70% TIR.

Commence **folic acid** 1mg daily.

Update microvascular & autoimmune **complication screening** (urine ACR, eye screen, TSH). Patients with CKD must see a nephrologist for preconception counseling.

Discontinue medications that are potentially embryopathic (including ACEi, ARB, statins)

If indication is strong, consider referring for expert input regarding use while attempting to conceive or for alternative medications that are pregnancy-safe.

Discontinue diabetes medications other than insulin & metformin.

Patients on metformin may continue if glycemic control is adequate, until pregnant.

Insulin regimen options for pregnancy preparation:

MDI regimen: Glargine once daily, individualised regimen; rapid-acting with meals (aspart, lispro or glulisine)

Pump: on either manual mode (Minimed) or off-label automated insulin delivery (OSAID Loop or Tandem Control IQ), or approved automated insulin delivery (mylife Loop)

NB non-automated pumping is not shown to be superior to MDI in pregnancy

Counsel on the impact of glycemic control & BMI on pregnancy outcomes, the pregnancy complications associated with DiP, and the impact of pregnancy on progression of complications. (DPD template in place to list these these counseling points)

Document OB history and obstetrician/maternity hospital details in 'General status' section of DPD.

Management during pregnancy:

Glycemic targets during pregnancy:

TIR 70% (3.5-7.8mmol/L) for T1D. Ideal targets for T2D not established, consider TIR 90% (3.5-7.8mmol/L if achievable without excess hypoglycemia.

A1c $\leq$ 6.5% (ideally $\leq$ 6.1%)

Fasting BG $<$ 5.3mmol/L, 1h post-meal BG $<$ 7.8mmol/L, 2h post-meal BG $<$ 6.7mmol/L

See [practical tips for insulin management in pregnancy](#). Ask about nausea and hypo tx.

Update education re [sick day management](#), [pump failure plan](#), DKA risk management - low threshold for pregnant patients to present to hospital if unwell or concern for possible DKA

Diet and exercise are first-line treatments for GDM and type 2 diabetes in pregnancy. Insulin or metformin may be used in GDM/type 2 if diet and exercise do not achieve glucose targets.

Diet Dietician input is recommended for individualised plan, general guidance includes:

T1D	T2D
Total carbohydrate intake aim 150-200g/day (e.g. 20g breakfast, 50g lunch, 50g dinner, three snacks of 10-15g during the day). Choose low GI, high fibre options. Choose high-quality fats and proteins; be aware of how these can change the absorption profile of meals and the corresponding prandial glucose spike.	
See video Top tips	See webinars with accompanying brochure - 1: What is GD and why carbohydrate matters , 2: Counting your carbohydrates , 3: Glycemic index, healthy eating and activity in pregnancy

General pregnancy [nutrition guidelines](#)

Discuss [appropriate weight gain](#) at initial visit and regularly throughout pregnancy

Pre-eclampsia risk

Monitor blood pressure routinely. If telehealth patient, ensure someone is checking BP.

Women with DiP should start ASA 81 mg* daily at 12-16 weeks gestation (*81mg commonly used due to availability, but higher dosage regimens may provide better efficacy - suggest patient discuss with their OB re preferred dose).

ASA can be started by a family doctor, but if not done, please discuss.

Labs & complication screening

If not had recent preconception labs, arrange baseline A1c, creatinine, TSH, urine ACR, ALT, AST. Then labs once/trimester for A1c, creatinine, urine ACR.

Retinopathy screen in first trimester; if retinopathy present then ophthalmologist should determine frequency of further reviews in pregnancy.

Review frequency

Weekly if glycemic control not stable / not at-target, 2nd weekly in most cases, every 4 weeks if very stable and patient is independent with insulin titration

Coordination with patient's OB/maternity hospital and emergency planning

Ensure correspondence is copied to patient's family doctor and OBGYN

Provide patient with copies of BCDiabetes letters at least once per trimester for their records, in case they need to present to a hospital unfamiliar with their management

Ensure patient keeps their "[hospital plan](#)" up to date, with:

Written records of their current pump settings or MDI doses

If Looping, PDM updated with their current doses in case they need to revert to PDM

Pump failure plan

Begin developing peri-partum plan early in the third trimester and prompt patient to discuss this with their obstetrician, other endocrinologist if relevant, anaesthesiologist if relevant

Peripartum management

All patients on insulin need a written peripartum management plan

Example plans:

[Peri-partum plan for MDI](#)

[Peri-partum plan for Loop](#)

[Peri-partum plan for AAPS](#)

[Peri-partum plan for iAPS](#)

Postpartum doses should typically be 50-70% of the **pre-pregnancy** doses.

Post-partum management

Counsel re changes in priority for glycemic control especially hypo avoidance. Discuss glycemic control strategies in the context of newborn/breastfeeding. Refer to above peri-partum plans.

CGM returns to standard display range 3.9-10mmol/L; adjust CGM high alarms.

Metformin can be recommenced post-partum if it was used prior to pregnancy.

Review frequency: first fortnight post-partum, then 3 monthly thereafter unless specific concern

Retinopathy screen to be repeated in the first year postpartum

Ensure has discussed appropriate contraception with OBGYN or family doctor