Thinking ahead. Thinking future.

The challenges for women planning for pregnancy and being pregnant

Women with type 1 diabetes should plan their pregnancy with their diabetes care and obstetric teams. **Optimal glycaemic management at conception and throughout the pregnancy have been associated with lower risk for obstetric and neonatal complications,** such as large for gestational age (LGA), admission to neonatal intensive care unit (NICU), preterm live birth and perinatal death.[1]

As it is critical to protect the foetus from exposure to high glucose levels, the **treatment goals are much stricter for pregnant women** with the target HbA1c below 6.5 % (48 mmol/mol) ideally before conception and 6.0 % (42 mmol/mol) as the pregnancy progresses.[2] As well, the target glycaemic range for pregnancy (TIRp) is 3.5–7.8 mmol/L (63–140 mg/dL), which is tighter than the one for the general population with type 1 diabetes (3.9–10.0 mmol/L (70–180 mg/dL)), whilst still having the same requirement of > 70 % of time spent within it.[3]

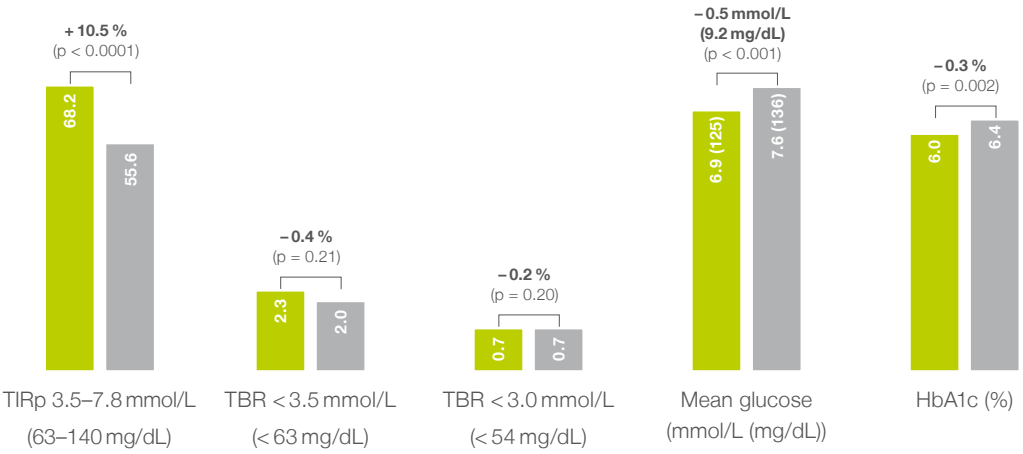
It is well documented that these **tighter glycaemic targets are a challenge to achieve without increasing the risk of maternal hypoglycaemia**, especially during the first trimester when women are at a higher risk of severe hypoglycaemia[4]. Conversely, later in pregnancy, during the third trimester, women will need to manage a **significant increase in** their **insulin requirements due to reduction in** their **insulin sensitivity**.[5]

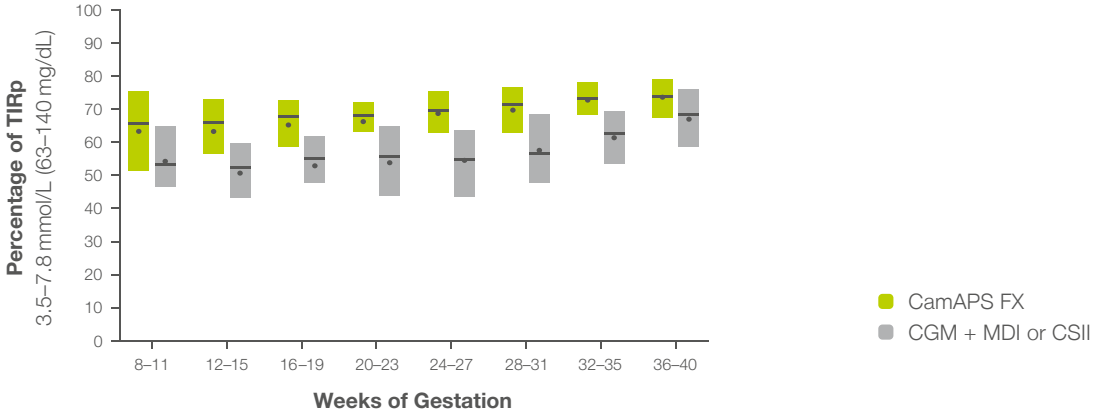
mylife CamAPS FX supports women in achieving their needs

mylife CamAPS FX automated insulin delivery (AID) algorithm can support women achieving these challenging glycaemic targets while planning for pregnancy and throughout their pregnancy, thanks to the adaptivity of the mylife CamAPS FX algorithm as well as its unique “Boost” feature and its highly customisable personal glucose target.

The AiDAPT randomised controlled trial[6] evaluated CamAPS FX in 124 pregnant women and demonstrated significant improvements in maternal glucose levels compared to continuous glucose control (CGM) therapy with standard insulin delivery: women using CamAPS FX (n=61) spent more time in the pregnancy specific target range and had lower mean glucose and lower HbA1c levels, compared to women in the control group (n=63). These improvements were achieved without any difference in the time spent in the hypoglycaemic ranges.

The benefits were observed immediately after initiating CamAPS FX and were sustained over the pregnancy period. Furthermore, all women reported more enjoyable pregnancy experiences as a result of using closed-loop[7].





mylife CamAPS FX usage: practical recommendations

When planning for pregnancy

- Being familiar with all technical aspects of the system
- Target HbA1c 6.5 % (48 mmol/mol) and TIR 3.9–10 mmol/L (70–180 mg/dL) > 70 %

During pregnancy

- Treat to target: TIRp 3.5–7.8 mmol/L (63–140 mg/dL) > 70 %[3]; mean glucose: 6.0–6.5 mmol/L (108–117 mg/dL); fasting glucose: 3.9–5.3 mmol/L (70–95 mg/dL)
- Adapting the personal glucose target (PGT): considering, if clinically appropriate, 5.5 mmol/L (99 mg/dL) during the first trimester; 4.5 mmol/L (81 mg/dL) overnight and 5.0 mmol/L (90 mg/dL) during the day during 2nd & 3rd trimesters
- Adjusting the PGT: lower it if glucose variability is low and raise it in case of frequent hypoglcaemias
- Using of “Boost” mode: especially in case of postprandial hyperglycemia and illness, stress, pain etc.
- Updating settings: weight (every 4 weeks), insulin-to-carbohydrate ratio (as needed per postprandial readings) and preset basal rate (every 4 weeks)

During labour and delivery

- mylife CamAPS FX can be continued in agreement with the obstetric team, if the mother (or partner) is in well enough and confident to self-manage her insulin delivery
- In the case of a caesarean section, mylife CamAPS FX can also be continued, in agreement with the obstetric team and anaesthetist. Sensor accuracy should be checked when diathermy is used.

These recommendations are taken from experience from the AiDAPT clinical study and might differ from women to women. All recommendations need to be discussed between the woman and her diabetes team.

This listing is not exhaustive and only show some of the benefits of using the mylife CamAPS FX algorithm. For more detailed materials, please contact your customer service, your diabetologist or visit **www.mylife-diabetescare.com/loop**.

mylife Loop CamAPS FX

Conclusions

- Women strive to achieve tight glycaemic control during pregnancy to reduce the risks of obstetric and neonatal complications
- Thanks to its unique technology and highly adaptive capabilities, CamAPS FX demonstrated in the AiDAPT study it can support women achieving their treatment goals during pregnancy, providing an additional 10.5 % more time spent in the pregnancy specific range, over the entire pregnancy period, without increasing hypoglycaemias
- Tight glycaemic control at conception has been associated with lower risks for neonatal complications, suggesting that women would benefit from starting mylife CamAPS FX as early as possible while planning for pregnancy
- By using closed-loop, more enjoyable pregnancy experiences can be achieved

The automated insulin delivery (AID) system mylife Loop is powered by mylife CamAPS FX, the app indicated for pregnancy. Practical recommendations for the use of mylife CamAPS FX from planning a pregnancy to breastfeeding are available.

More information about mylife Loop on www.mylife-diabetescare.com/loop

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4 Ringholm L, et al. Hypoglycaemia during pregnancy in women with Type 1 diabetes. Diabet Med 2012;29:558-66. DOI: 10.1111/j.1464-5491.2012.03604.x
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6 Lee T.M. et al: Automated Insulin Delivery in Women with Pregnancy Complicated by Type 1 Diabetes: a multicentre randomized controlled trial. The New England Journal of Medicine. Oct 5, 2023. DOI: 10.1056/NEJMoa2303911
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For safety information on mentioned products, see Instructions for Use or www.mylife-diabetescare.com/safety

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