

Medtronic 670G Insulin Pump: Auto Mode Keys to Success

Please discuss these suggestions with your educator and review your Medtronic resources.

Auto Mode - Preparation & Start

1. Know how to prevent DKA in pump therapy.
2. Complete the Auto Mode Learning Module.
3. Set up a Carelink account. Upload your pump.
4. Use CGM not less than 48 hrs or at least 6 days ideally. Insert a new sensor 1-2 days before starting Auto Mode.
5. Have your BG meter checked for accuracy.
6. On Auto Mode Start Day:
 - Rise early. Correct a high reading 3 hr prior Auto Mode. This makes for an easier start.
 - Bring pump, BG meter, pump safety kit.
 - Follow with your trainer! Don't start alone.

Auto Mode – What You Should Know

- Auto Mode functions like a dimmer switch. It turns basal insulin up, down or off to target glucose readings of 6.7 mmol/L before and after meals. You may set a temporary target of 8.3 mmol/L.
- The goal of Auto Mode is to reduce diabetes decisions and improve glycemic control, not replace finger sticks. Be patient. The Auto Mode algorithm needs to "learn" your needs over a few weeks.
- Auto Mode suggests doses for meals based on your insulin-to-carbohydrate ratio.
- Auto Mode suggests correction doses based on its algorithm, not on your insulin sensitivity factor. (ISF, temporary basal rate, square wave bolus, dual wave bolus are not available in Auto Mode)
- You can accept or decline suggestions for meal and correction doses, but cannot modify them.

Blood Glucose (BG) Checks & Calibrations

- Auto Mode won't work without BG checks.
- Aim for 3-4 calibrations a day (waking, before 1-2 meals, bedtime).
- Expect 6-7 BG checks/day to start.
- Don't calibrate using a sensor reading.
- Calibrate and wait 5 minutes before eating.
- Delay calibrating if sensor shows up or down arrows, particularly 2-3 arrows.
- If the calibration is not accepted, wait at least 1 hour before trying again.

Meal Boluses & Corrections

- Calibrate and wait 5 minutes before eating.
- Enter accurate carbohydrate counts. Don't shave or add grams. Consider temp target of 8.3 mmol/L.
- Bolus 5-15 minutes before eating. If you forget and glucose is high:
 - If ≤ 1 hour: Enter half the grams of carb eaten, take the recommended meal bolus and recheck BG in an hour. Then, if glucose is high, enter BG and take recommended correction dose.
 - If > 1 hour: Enter BG and take recommended correction dose.
- Enter and bolus for additional unplanned carbs at the end of the meal.
- You should know:
 - You can accept or decline suggested bolus but not change it.
 - You can accept or decline suggested correction dose but not change it.
 - If bolusing more than 25 units at one time (max bolus), two separate boluses will be needed.
 - Additional bolusing advice is available in your Medtronic training materials

Hypoglycemia

- Treat readings under 4.0 mmol/L. Don't wait for a zero basal rate to fix this. Delayed treatment can reduce symptoms of the next low and increase the risk of developing hypoglycemia unawareness.
- Less than 15 grams glucose may be needed to treat lows. Start with 15g for the first low and assess.
- Consider a temporary target of 8.3 mmol/L before, during and/or after exercise.

Hyperglycemia

- If over 13.9 mmol/L with ketones (blood 0.6 mmol/L or more, urine greater than trace or 5 mg/dL):
 - Stop Auto Mode. Resume Manual Mode.
 - Give manual injection with syringe or pen. Follow guidelines to prevent DKA.
 - Resume Auto Mode when ketones are cleared, glucose readings improved and 3-4 hours after last manual injection. Manual injections are not accounted for in Auto Mode.

Manual Mode will start automatically if:

- Missed calibration
- The 'insulin flow blocked' alarm occurs
- ≥ 16.7 mmol/L for 1 hr OR ≥ 13.9 for 3 hrs
- Min basal > 2.5 hrs and then safe basal >1.5 hrs
- Max basal > 4 hrs and then safe basal > 1.5 hrs
- System determines sensor under-reading

Safe Basal will start automatically if:

- Sensor warming up, signal lost, calibration expired, sensor differs from BG $\geq 35\%$
- System determines sensor under-reading
- Minimum auto basal delivered for 2.5 hrs
- Maximum auto basal delivered for 4 hrs

A Good Night's Sleep

- At bedtime, calibrate and correct high readings to avoid overnight alerts that require action.
- Be sure there is "No red before bed." The goal is a blue shield.

Battery Life

- Expect 1 battery a week. After the first battery alert, there's 8 hours or less of charge remaining.
- Change screen time to 15 seconds. (Main menu > Options > Utilities > Display Options > Backlight > 15 seconds)
- Consider longer lasting lithium batteries (check drugstores) or high-quality rechargeable batteries.
- After using screen, put the screen to sleep by holding the graph button.

Suspend

- Suspend the pump if disconnecting so the algorithm knows this insulin isn't being delivered.
- Don't suspend if suspect getting low soon; the pump will do this. However, treat with glucose if low.

Carelink Reports

- Upload the pump to Carelink at least monthly (more frequently when you first start)
- Review reports with your educator to see progress, reduce Auto Mode exits, assess insulin-to-carbohydrate ratios, update manual basal rates, troubleshoot frequent periods of maximum or zero basal insulin for extended periods of time.