

SYSTEM PROFILE

MiniMed 780G at a glance

AIT

Primary optimisation lever

Active Insulin Time (AIT). Shorter AIT + lower target = optimal. Only 6.4% of users on optimal settings.

OPTIMAL TIR

78.8%

5.5 target + 2h AIT

REGISTRY

101,629

Choudhary et al. 2024

AGE UK/EU

2+

UKCA/CE, T1+T2

AGE US

7+

FDA, T1; T2 18+

Ref: Choudhary P et al. 2024 · Bassi M et al. 2025 · Priya & Kalra 2021 · Pemberton & Uday 2026.

THE ESSENTIALS

- ✓ **Tubed pump.** 3-day infusion set, 300U reservoir.
- ✓ **SmartGuard algorithm** - predictive, continuous learning. Adjusts every 5 min.
- ✓ **Compatible CGM (3 sensors):** Guardian 4 (7d), Simplerla Sync (7d, upper arm), Instinct (Abbott-made, 15d, CE Mark 10 Mar 2026).
- ✓ **Target options:** 5.5, 6.1, 6.7 mmol/L. 5.5 is the lowest UK AID target.
- ✓ **AIT options:** 2, 2.5, 3, 3.5, 4 hours.
- ✓ **Auto-correction boluses.** Continuous background corrections - up to every 5 min.
- ✓ **Most continuous high-glucose response.** Better at pulling glucose down than basal-only systems.

MINIMED-RECOMMENDED STARTING CONFIGURATION

Manufacturer-recommended start

POPULATION	GLUCOSE TARGET	AIT
Adults	100 mg/dL (5.5 mmol/L)	2 hours
Ages 7 to 14	110 mg/dL (6.1 mmol/L)	2 hours
Ages 2 to 6	120 mg/dL (6.7 mmol/L)	2 hours

GNL teaching framework, not endorsed by MiniMed. The 3-tier ladder below is a GNL pedagogical device to help you reason about responsiveness vs IOB visibility. All settings sit within the 780G's adjustable range. MiniMed has not assessed the framework and does not endorse it. Down-titrate target only when there are no hypoglycaemia concerns. Discuss any deviation with your diabetes care team.

TIER	TARGET (ADULTS)	AIT	OUTCOME PROFILE
Optimal	5.5 mmol/L	2 hours	Highest TIR (78.8% on this combination, Choudhary 2024)
Balanced	6.1 mmol/L	2.5 hours	Good balance
Protective	6.7 mmol/L	3 hours	Most conservative

GETTING THE MOST FROM 780G · PART 1

Why AIT is the biggest lever

AIT tells SmartGuard how long it should assume insulin is still working. Shorter AIT means the algorithm models insulin clearing faster, so it auto-delivers more frequently.

- ▶ **AIT 2 hours** - MiniMed-recommended starting setting. Works best paired with the age-banded target.
- ▶ **AIT 3+ hours** - algorithm holds back. Good protection but leaves TIR behind.
- ▶ **Changing AIT alone** - modest effect. Pairing AIT with target gives the step change.

The 780G manages the AIT 2 hour setting well because the algorithm constantly reads glucose and corrects both ways. Move one step at a time, with your team.

EXERCISE ON THE 780G

Temp Target and fuelling

- ▶ **Temp Target 8.3 mmol/L.** Set duration 30 min - 24 hours. Reduces basal, disables auto-correction.
- ▶ **Activate 60-90 min before exercise.** Gives IOB time to drop.
- ▶ **Long sessions** - combine Temp Target with reduced mealtime bolus.
- ▶ **Post-exercise lows** can arrive hours later. Keep Temp Target on 60-90 min after stopping.

MAJOR IN THE MAJORS · #1

Two settings, most of the outcome

- ▶ **Glucose target.** 5.5, 6.1 or 6.7 mmol/L (100, 110, 120 mg/dL). Lower target = more responsive algorithm. MiniMed paediatric floor: 110 mg/dL ages 7 to 14, 120 mg/dL ages 2 to 6.
- ▶ **Active Insulin Time (AIT).** 2, 2.5, 3, 3.5 or 4 hours. Shorter AIT = algorithm models insulin clearing faster, auto-delivers more frequently. MiniMed-recommended starting AIT: 2 hours.
- ▶ **Carb ratio.** Meal boluses use your ICR - algorithm doesn't override it.
- ▶ **Basal profile.** Still the foundation. Review with your team every 4-8 weeks.

MAJOR IN THE MAJORS · #2

Staying in SmartGuard Auto mode

- ▶ **93% Auto-mode target** - CIP330 trial benchmark. If you're below 85%, there's a fix.
- ▶ **Common Auto-mode exits:** sensor signal loss, missed calibration prompts, prolonged highs above working range.
- ▶ **CareLink weekly review.** Time in Auto first, TIR second. Auto-mode time is the precondition.
- ▶ **Infusion sites.** Rotate every change - abdomen, lower back, thighs, upper outer arm.
- ▶ **Change in the morning** so you can spot absorption issues before bedtime.

MAJOR IN THE MAJORS · #3

Two actions that move HbA1c most

The AID Optimiser models what target + AIT changes will do. Use it before you change anything.

ACTION 1 **AID Algorithm Optimiser**
Model target and AIT changes for MiniMed 780G SmartGuard. See expected TIR shift before you commit. →

ACTION 2 **Exercise Planning Explorer**
Temp Target timing + bolus reductions for your session type. →

GO DEEPER

GNL explorers, guides & podcasts

Interactive tools, graded evidence and long-form reading when you want more than a leaflet.

GUIDE **Full AID Guide - 5-part series**
How every AID algorithm works, side by side. →

SYSTEM **GNL MiniMed 780G Page**
Deep dive - SmartGuard, registry data, optimisation strategy. →

PODCAST **Episode 36 - DSN Forum UK**
780G user experience, Simplera practicalities, real-world use. →

ASK **Grace - evidence-backed Q&A**
Ask anything about 780G, SmartGuard or T1D. →