GLP-1RA / GIP in Type 1 Diabetes FAQ

This is as summary of the full and evolving FAQ designed for people living with type 1 diabetes (T1D) and healthcare professionals. It provides detailed guidance on GLP-1 receptor agonists (GLP-1RA, e.g. liraglutide, semaglutide) and dual GLP-1/GIP agonists (e.g. tirzepatide) in T1D.

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Evidence comes from: clinical trials led by Professor Viral Shah and colleagues, international consensus guidelines expert opinion pieces, and resources from The Glucose Never Lies® - See the live FAQ to keep up to date.

Q1. Does everyone need a 30% insulin reduction?

No — insulin reduction must be individualised. Suggested starting bands:

- **HbA1c >9% or TIR <40% → reduce ~10%**
- **HbA1c 7.5–9% or TIR 40–60% → reduce ~20%**
- **HbA1c <7.5% or TIR >60% → reduce up to ~30%**
- **If TBR >4% → reduce ~30% but monitor closely**

***Algorithm*: start with smallest reduction compatible with baseline risk → monitor via CGM → titrate every 1–2 weeks.**

Q2. How should reductions be applied across regimens?

MDI or standard pumps (50:50 basal:bolus)

Reduce both basal and bolus equally.

Basal-heavy (>60% basal)

Reduce more off the basal.

Bolus-heavy (>60% bolus)

Reduce more off the bolus

t:slim X2 with Control IQ

Program multiple profiles with relaxed carb ratios, basal rates and correction factors

−10%, −20%, −30%, −40%

Switch between profiles based on glucose results

Omnipod 5 with SmartAdjust

CamAPS Fx

Relax carb ratios

Start higher targets

iLet

Enter ~10–40% fewer carbs or choose the “smaller meal” option

Medtronic 780G with Smart Guard

Relax carb ratios

Start with higher target

Extend active insulin time if required

***Fallback: r*educe carb entries (20–40%) if adjusting system settings are complex.**

Q3. GLP-1RA vs dual GLP-1/GIP?

GLP-1RA (liraglutide, semaglutide)

RCTs show ~30% insulin reduction, weight loss, improved TIR.

Dual GLP-1/GIP (tirzepatide)

Real-world observational data suggest greater weight loss and insulin reduction, but no RCTs yet in T1D.

Q4. What about DKA and ketosis risk

Trial results:

- **ADJUNCT trials: higher ketosis at high liraglutide doses.**
- **Semaglutide: NEJM double blind RCT: no DKA**
- **Tirzepatide observational: no DKA.**

Mitigation strategies:

- **Never stop basal insulin.**
- **Educate on ketone monitoring.**
- **Avoid overly aggressive insulin reduction.**
- **Maintain carb/protein intake if appetite is suppressed.**

Live FAQ: https://theglucoseneverlies.com/faq-glp1-tld/

Managing Side Effects & Optimising Treatment

Q5. How can nausea and GI side effects be managed?

Start with lowest dose; titrate every 4 weeks.

Eat smaller, frequent meals.

Avoid large fatty meals during titration.

Moderate fibre intake until tolerated.

Q6. How can lean mass and bone health be protected?

Nutrition & Exercise

- Protein ~1.5 g/kg/day across 3–4 meals.
- Resistance training 2–4×/week.

Monitoring

- Monitor vitamin D, iron, B12.
- Consider bone monitoring — long-term incretin effects are uncertain.

Q7. How do I reduce risk of hypoglycaemia during insulin adjustments?

- Use CGM with alerts enabled; review data often.
- In AID systems: begin with higher glucose targets, lower gradually.
- For MDI and open-loop pumps, use a higher glucose target when giving correction doses.

Q8. How do I avoid nutritional deficiencies if appetite is low?

Food Choices

Prioritise nutrient-dense foods: lean protein, colourful veg, whole grains, nuts, seeds.

Fibre Management

Use lower-fibre veg if fullness is an issue.

Supplements

Consider a multivitamin/mineral.

Monitoring

Bloodwork: renal panel, LFTs, vitamin D, iron, B12.

Q9. Is there benefit for people with normal weight?

Yes. Potential benefits include:

- Reduced postprandial glucagon.
- Lower insulin needs.
- Smoother glucose stability.

But risks of GI side effects are higher without a weight-loss goal. Use minimum effective dose and emphasise lean mass preservation.

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