

This is my time in range chart for the past month. What recommendations would you make?

Edit

Looking at your glucose data, you're doing quite well overall with 83.4% time in range, which exceeds the recommended target of 70%. Here are some key observations and recommendations:

Strengths:

- Your time in range is excellent at 83.4%
- Low glucose episodes are minimal at 5.6%
- Your average glucose of 7.0 mmol/L is reasonable

Areas for improvement:

Reduce high glucose episodes: At 11% time above range, there's room to tighten control. Consider:

- Reviewing your carbohydrate counting accuracy
- Discussing meal timing and bolus timing with your healthcare team
- Looking at post-meal glucose spikes - your mean hourly change of 3.37 mmol/L suggests some significant swings

Address glucose variability: Your standard deviation of 2.3 mmol/L indicates moderate variability. The 30% time in fluctuation (>0.27 mmol/L/5min) suggests frequent glucose changes. To improve:

- Look for patterns in your glucose data - are there specific times of day or activities causing spikes?
- Consider if stress, sleep, or exercise patterns correlate with higher variability
- Review your basal insulin or background medication timing

Potential A1c consideration: Your estimated A1c of 6.0% is good, but given the glucose variability, focusing on smoother control could help you feel more stable day-to-day.

I'd recommend discussing these patterns with your diabetes care team, particularly focusing on strategies to reduce post-meal spikes while maintaining your excellent time in range.

Retry

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Thanks. This is my AGP graph. Can you enhance your recommendations using it please?

Edit

This AGP (Ambulatory Glucose Profile) provides much more detailed insights! Here are my enhanced recommendations:

Key Patterns Identified:

Dawn Phenomenon (4-8 AM): Your glucose rises steadily from about 6 mmol/L at 4 AM to around 8 mmol/L by 8 AM. This natural dawn phenomenon appears quite pronounced and likely contributes to your overall variability.

Post-Meal Spikes: The most significant issue is the dramatic rise after lunch (12-2 PM), where your 90th percentile reaches 12+ mmol/L. There's also a notable evening rise around 6-8 PM.

Overnight Stability: Your glucose is most stable overnight (10 PM - 4 AM), which is positive.

Enhanced Recommendations:

1. Address Dawn Phenomenon:

- Discuss with your team about adjusting basal insulin or medication timing
- Consider a small protein snack before bed to help stabilize morning glucose
- Early morning exercise might help blunt the rise

2. Tackle Post-Lunch Spikes:

- This is your biggest opportunity for improvement
- Review lunch carbohydrate portions and bolus timing
- Consider pre-bolusing 15-20 minutes before lunch
- Look at lunch composition - high-fiber, lower-GI options may help

3. Evening Management:

- The 6-8 PM rise suggests dinner or afternoon snack timing issues
- Consider splitting larger evening meals or adjusting dinner timing

4. Hypoglycemia Prevention:

- Your lows cluster around 2-4 AM and occasionally around 10 AM
- This suggests possible over-correction from the dawn phenomenon or delayed meal absorption

The AGP shows you have good baseline control but significant meal-related excursions. Focus on meal timing and bolusing strategies for the biggest impact.

Retry

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Great. Thanks for that. Here are the daily traces. Can you enhance any further with this information?

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This daily trace data reveals some crucial patterns that significantly enhance my recommendations:

Major Pattern Discovery:

Consistent Post-Lunch Spike (12-2 PM): Every single week shows dramatic spikes reaching 15-20+ mmol/L after lunch. This is your most critical issue and likely the main driver of your 11% time above range.

Day-of-Week Patterns:

- **Weekends (Saturday/Sunday - light blue/purple)** show more erratic patterns with higher spikes
- **Weekdays** generally show more consistent patterns but still with the lunch spike
- **Mondays** often show particularly high morning glucose, suggesting weekend effects

Specific Weekly Observations:

Week 1 (June 6-12): Severe lunch spikes daily, some reaching 20+ mmol/L **Week 2 (May 30-June 5):** Similar lunch pattern, with weekend irregularity **Week 3 (May 23-29):** Lunch spikes persist, notable evening highs on weekends **Week 4 (May 16-22):** More controlled overall but lunch spikes still present **Week 5 (May 13-15):** Shorter period but shows the same lunch pattern

Enhanced Priority Recommendations:

1. **URGENT: Address Lunch Management**
 - Your lunch routine is causing dangerous spikes (15-20+ mmol/L)
 - Consider splitting lunch into smaller portions
 - Pre-bolus 20-30 minutes before eating
 - Review carb counting accuracy for lunch specifically
 - Consider lower-carb lunch options temporarily while adjusting insulin
2. **Weekend Strategy Needed**
 - Plan weekend meals more carefully
 - Maintain consistent timing even on weekends
 - Monitor sleep pattern effects on Monday mornings
3. **Evening Stabilization**
 - Several traces show late evening spikes (8-10 PM)
 - Review dinner timing and composition

The lunch spike is so consistent and severe that it should be your absolute top priority. This single intervention could dramatically improve your time in range.

Retry

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I've attached my pump profile. Would you be able to recommend any changes given the data I've provided to you?

Edit

Now I can see the root causes of your glucose patterns! Your pump settings reveal several key issues that explain the spikes we've been seeing:

Critical Issues Identified:

1. Insufficient Lunch Coverage (12:00)

- **Current I:C ratio: 1:21** - This is your weakest ratio and explains the massive post-lunch spikes
- **Recommendation:** Strengthen to **1:15-1:18** initially
- Your 12 PM I:C is weaker than your other meal times, but lunch clearly needs the most aggressive coverage

2. Dawn Phenomenon Under-Management (4-8 AM)

- **Current basal:** 0.384-0.5225 units/hour during dawn hours
- **Recommendation:** Increase dawn basal rates:
 - 4-6 AM: **0.45-0.50** units/hour
 - 6-8 AM: **0.60-0.65** units/hour
- This should help control that consistent morning rise we saw in your AGP

3. Evening Basal Inadequacy

- **Current:** 0.25-0.35 units/hour (4-11 PM)
- **Recommendation:** Increase evening rates to **0.40-0.45** units/hour
- This addresses those evening spikes visible in your daily traces

4. ISF Adjustments Needed

- **12 PM ISF:** Currently 4.27 - consider strengthening to **3.5-4.0**
- **Evening ISF (4-8 PM):** Strengthen from 6.32 to **5.0-5.5**

Implementation Strategy:

1. **Start with lunch I:C ratio** - this will have the biggest immediate impact
2. **Adjust dawn basal rates** next
3. **Fine-tune evening rates** after observing lunch improvements
4. **Modify ISF** last, once basal and I:C changes stabilize

These changes should dramatically reduce your post-meal spikes and improve your already-good time in range to excellent levels.