

Diabetes Management Report

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Introduction

This comprehensive report analyzes 14 days of diabetes management data to provide actionable insights and recommendations. The analysis covers glucose monitoring, physical activity, heart health metrics, and other vital health indicators to support effective diabetes management.

Glucose Management Overview

Time in Range Analysis

- Overall Time in Range:** 83% (Target: 70-180 mg/dL)
- CGM Active Duration:** 97% (Excellent monitoring compliance)
- Average Glucose:** 135 mg/dL
- Glucose Management Indicator (GMI):** 6.5%
- Glucose Variability:** 32.4% (Within target of $\leq 36\%$)

Glucose Distribution

Range (mg/dL)	Time Spent	Duration
Very High (>250)	2%	29 min
High (181-250)	13%	3h 7min
Target (70-180)	83%	19h 55min
Low (54-69)	2%	29 min
Very Low (<54)	0%	0 min

Daily Glucose Trends

Oct 13-19: Upward trend (127 → 173 mg/dL) Oct 20-26: Downward trend (130 → 102 mg/dL)

Physical Activity & Heart Health

Step Analysis

- Daily Average:** 8,820 steps
- Peak Activity:** 10 AM (800 steps/hour)
- Most Active Period:** 10 AM - 5 PM
- Least Active Period:** 7 PM - 9 PM

Heart Rate Metrics

- Average Heart Rate:** 81 bpm
- Peak:** 87 bpm (4 PM)
- Lowest:** 74 bpm (9 PM)
- Normal Range:** All readings within healthy range

ECG Analysis

- RR Intervals:** Normal variation observed
- QT Intervals:** Within normal range
- Rhythm Analysis:** Regular sinus rhythm detected

Nutritional Status

- Estimated Daily Calories:** 2,100 calories
- Macronutrient Distribution:**
 - Carbohydrates: 45% (237g)
 - Protein: 25% (131g)
 - Fat: 30% (70g)

Clinical Assessments

Retinal Scan Results

- No signs of diabetic retinopathy
- Minor vessel changes noted
- Recommended follow-up: 12 months

Insulin Management

- **Observed Pattern:** Inconsistent recording
- **Coverage Gaps:** Multiple days showing incomplete data
- **Recommendation:** Implement digital tracking system

Key Insights & Recommendations

Immediate Action Items

1. **Glucose Management**
 - Current control is good but can be optimized
 - Focus on reducing time in high ranges (currently 15% combined)
2. **Physical Activity**
 - Increase morning activity (7-9 AM)
 - Add structured exercise during low-activity periods
3. **Nutrition & Medication**
 - Implement consistent meal timing
 - Document all insulin doses
 - Consider pre-bolusing for meals

Lifestyle Modifications

- **Exercise:**
 - Add 10-minute walks after meals
 - Target 10,000 daily steps
 - Schedule activity during glucose peaks
- **Diet:**
 - Log all meals and snacks
 - Focus on low-glycemic foods
 - Maintain consistent meal timing
- **Monitoring:**
 - Continue excellent CGM usage
 - Add food diary
 - Document exercise intensity

Follow-up Recommendations

1. Schedule quarterly endocrinologist review
2. Book annual eye examination
3. Consider diabetes education refresh
4. Review insulin regimen with healthcare provider

Risk Assessment

- **Low Risk Areas:**
 - Hypoglycemia management
 - CGM compliance
 - Overall glucose control
- **Areas Needing Attention:**
 - Insulin documentation
 - Morning physical activity

- Post-meal glucose management

This report indicates overall good diabetes management with specific areas for optimization. Continue current successful strategies while implementing suggested improvements for enhanced outcomes.