# Health Analysis Report: Hank (Jong-Hyun Lee)

EXECUTIVE SUMMARY
============================================================

Name: Hank (Jong-Hyun Lee)
Age: 32 years (30-39 bracket)
Gender: Male
Analysis Period: 2022-12-20 to 2025-11-27 (1025 days)
Generated: 2025-11-29 23:26

HEALTH SCORES
───────────────────────────────

Overall Score: 78/100 (Moderate)
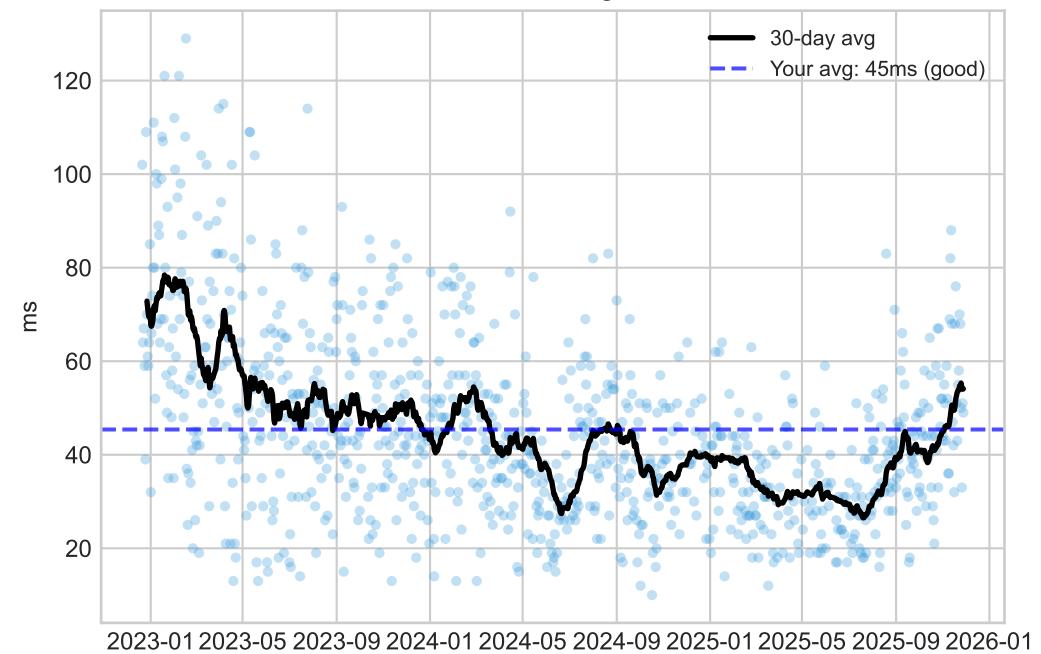
    Cardiovascular: 70/100
    Respiratory:    90/100
    Sleep:          92/100
    Recovery:       48/100
    Activity:       88/100

TOP RECOMMENDATIONS
───────────────────────────────
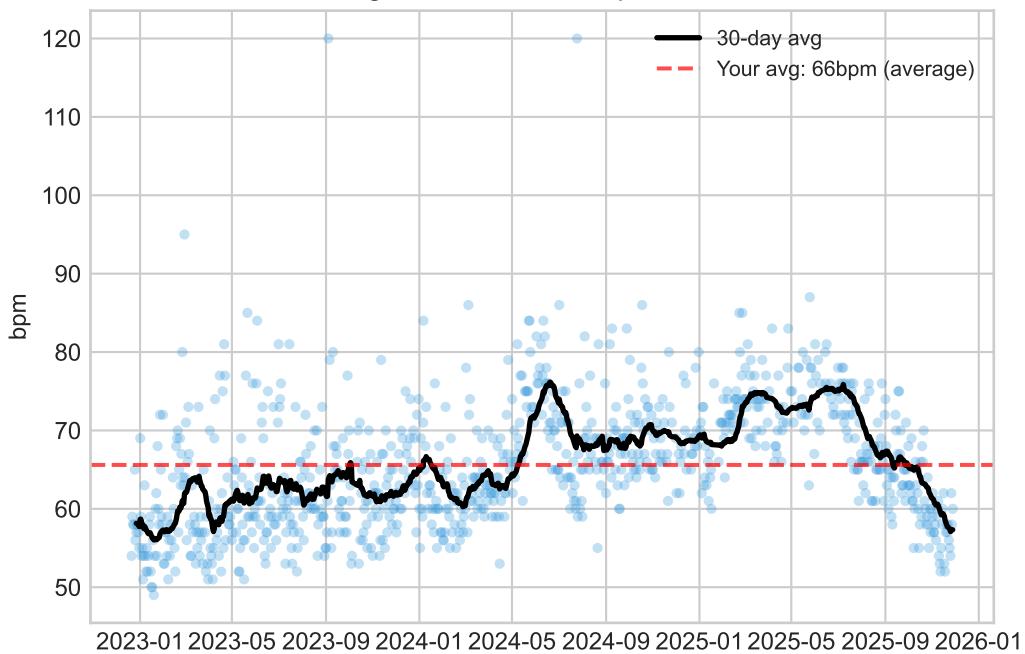
1. [HIGH] Respiratory: Screen for sleep apnea. Consider sleep study (polysomnograph...
2. [HIGH] Sleep: Aim for 7-9 hours. Establish consistent sleep/wake times. Cr...
3. [HIGH] Sleep Debt: Prioritize sleep extension. Consider 20-min naps if needed. ...

# Cardiovascular Health
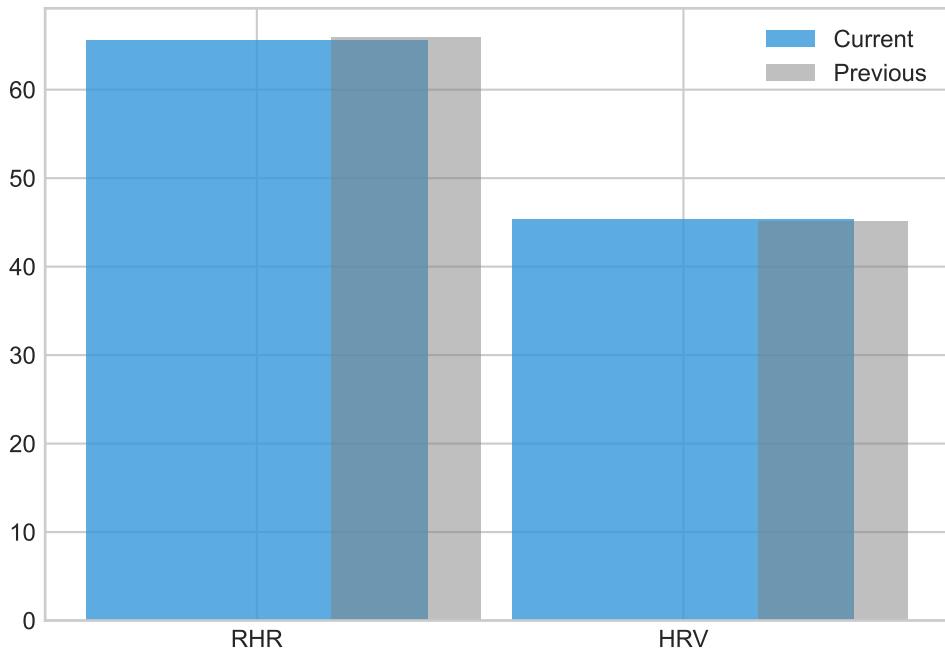


### HRV - +0 ms vs age median
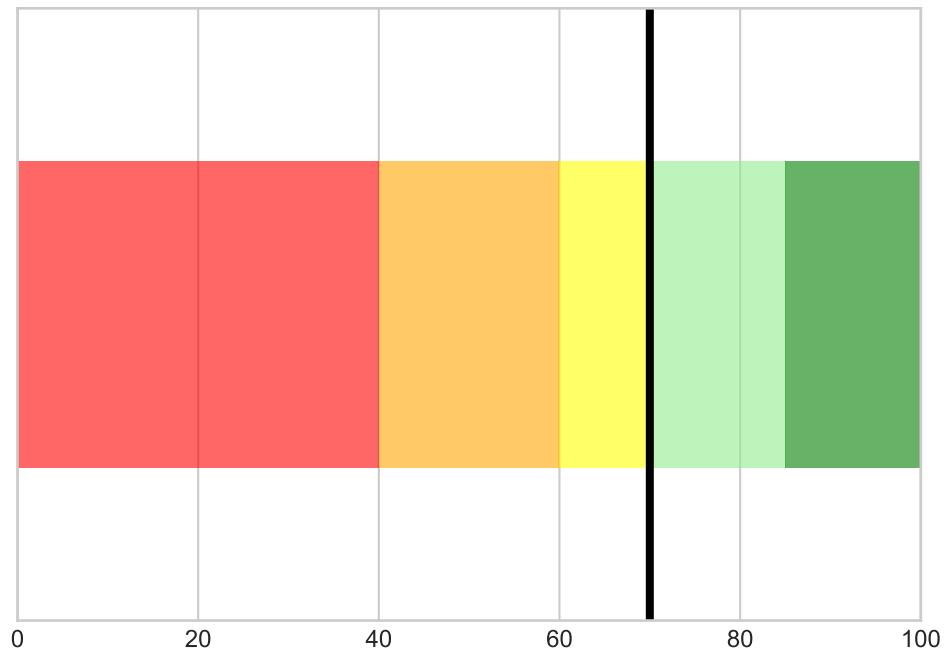
### Resting Heart Rate - +4 bpm vs median

### Current vs Previous Analysis
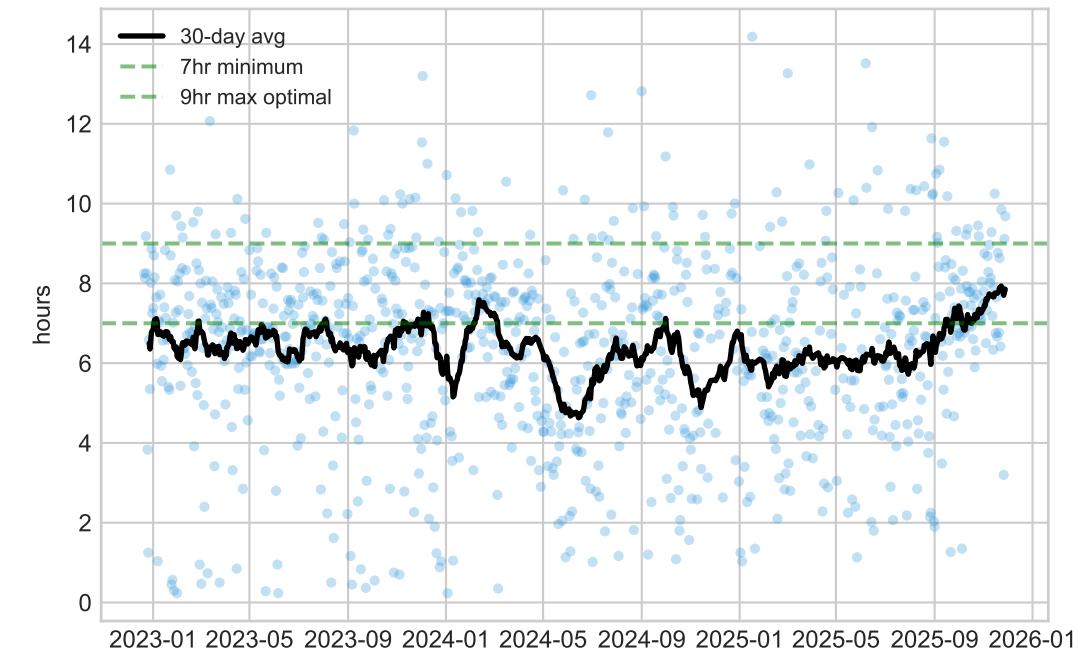
### Cardiovascular Score: 70/100
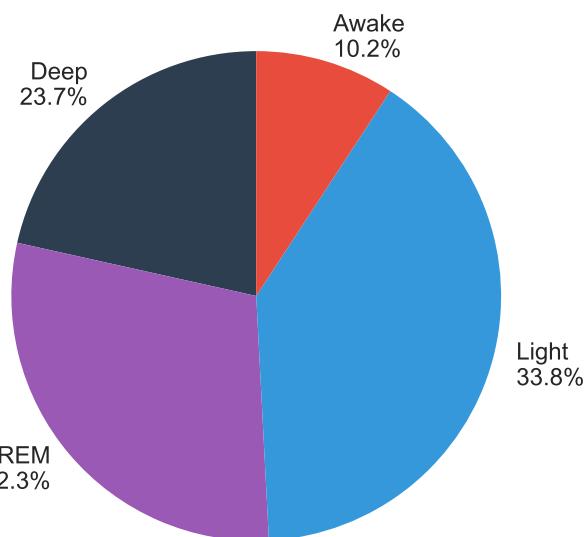
# Sleep Health
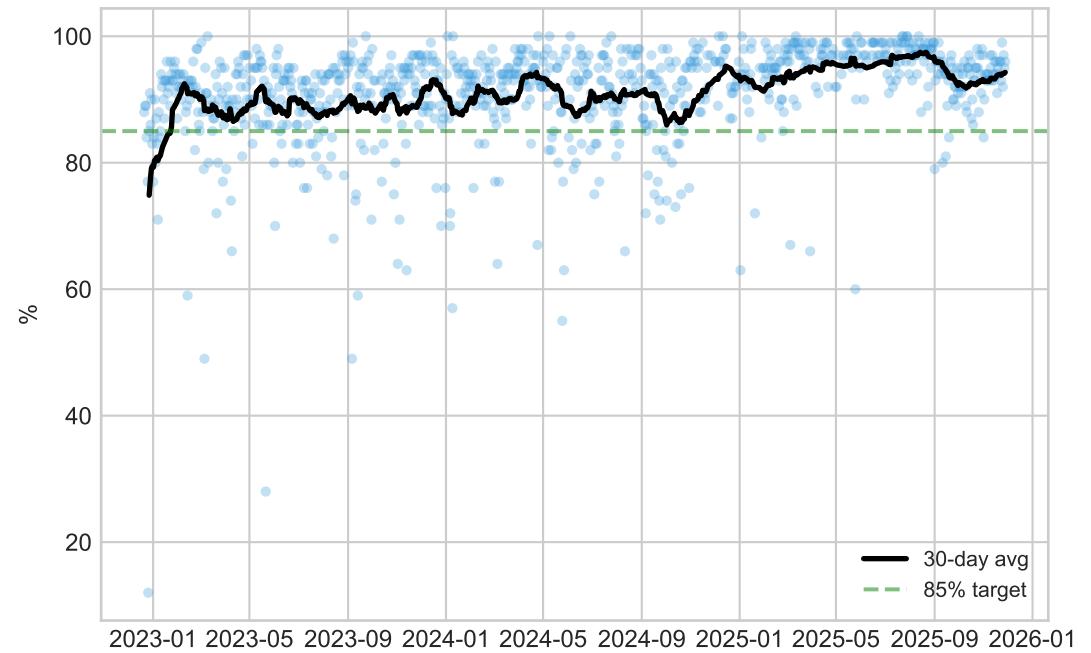


## Sleep Duration - Acceptable

- 30-day avg
- 7hr minimum
- 9hr max optimal

## Sleep Architecture

- Awake 10.2%
- Deep 23.7%
- Light 33.8%
- REM 32.3%
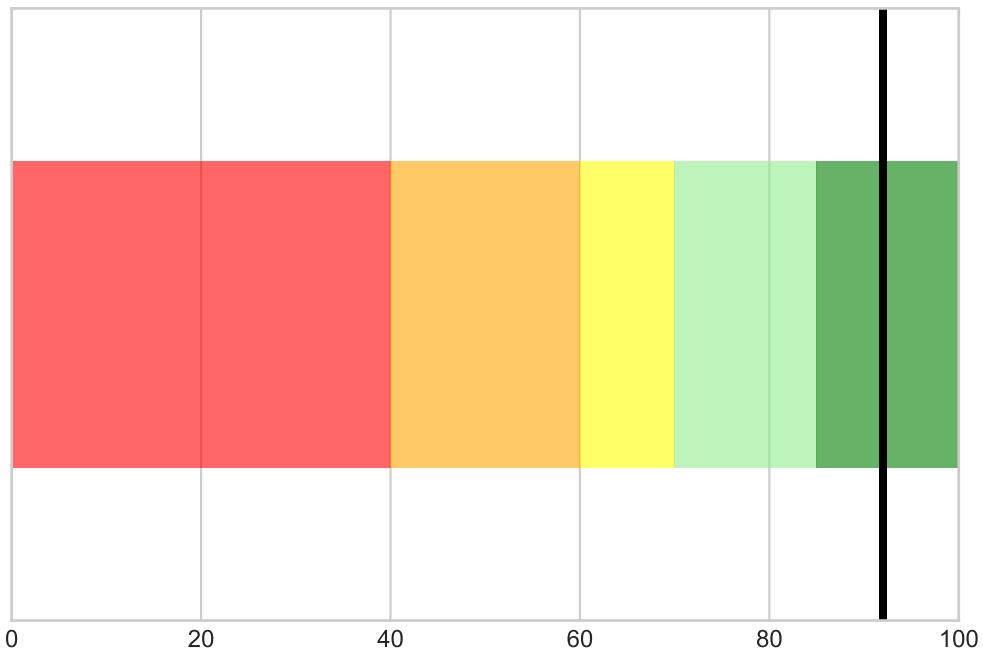
## Sleep Efficiency - Avg: 91.1%

- 30-day avg
- 85% target
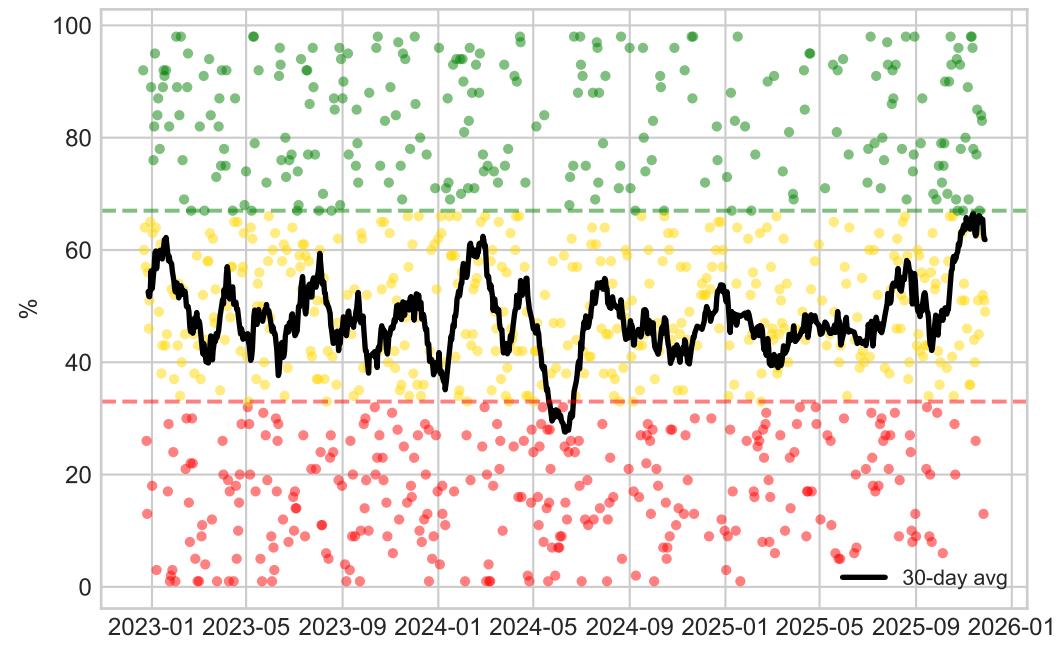
## Sleep Score: 92/100
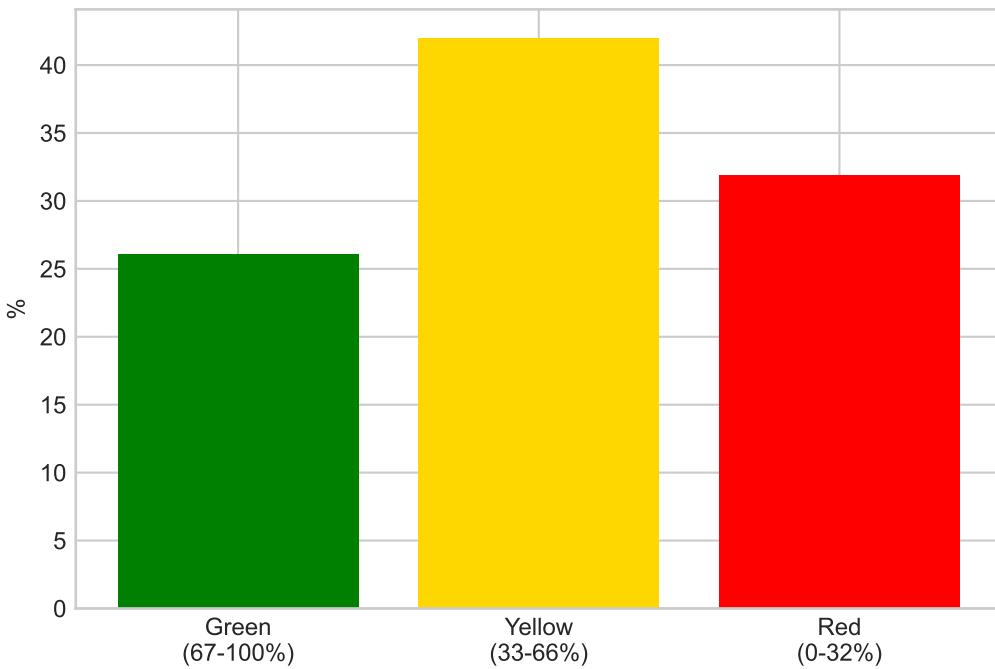
# Recovery & Activity
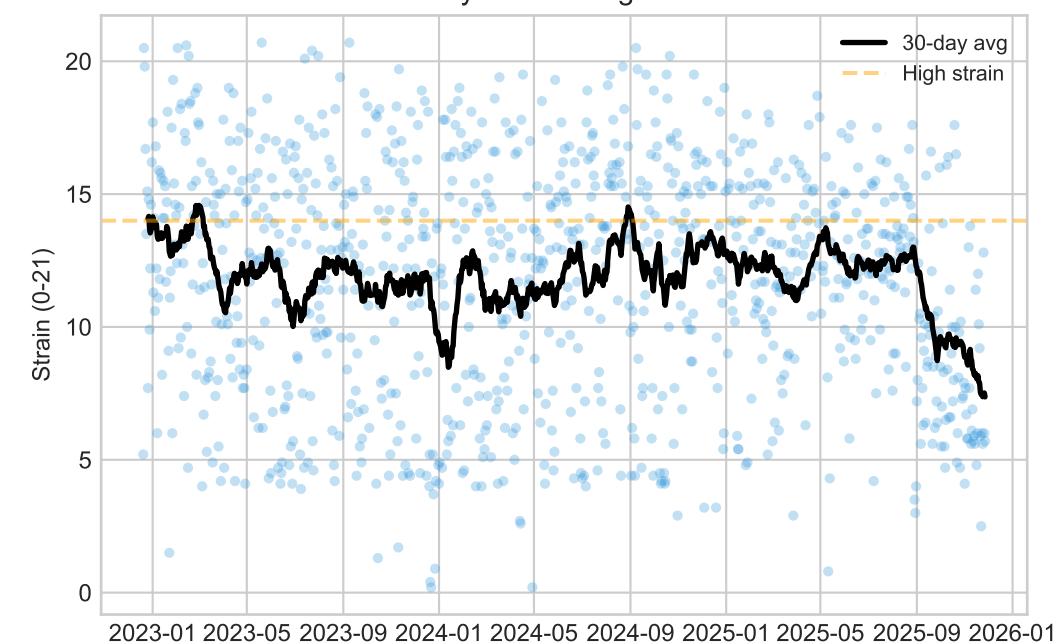
## Recovery Score - Avg: 48%

30-day avg

## Recovery Distribution

| Green (67-100%) | Yellow (33-66%) | Red (0-32%) |

## Day Strain - Avg: 11.8

30-day avg
High strain

## Activity Intensity Mix

All-out 6%
High 29%
Moderate 32%
Light 34%
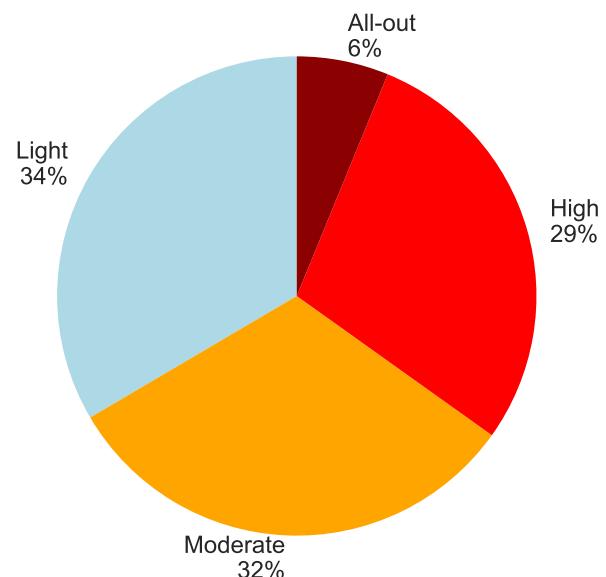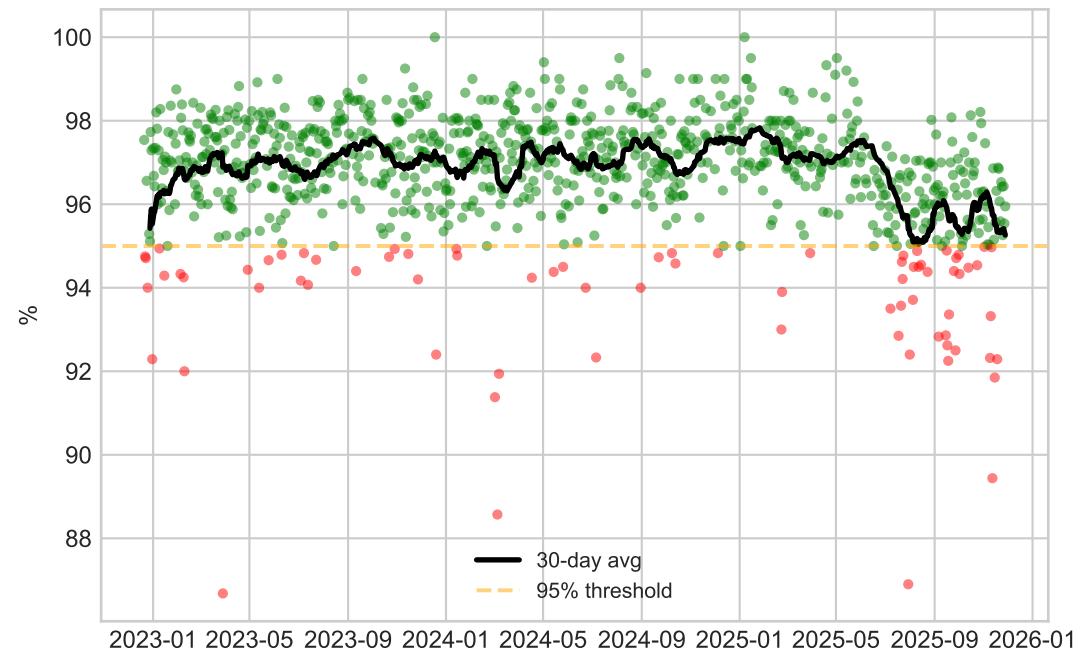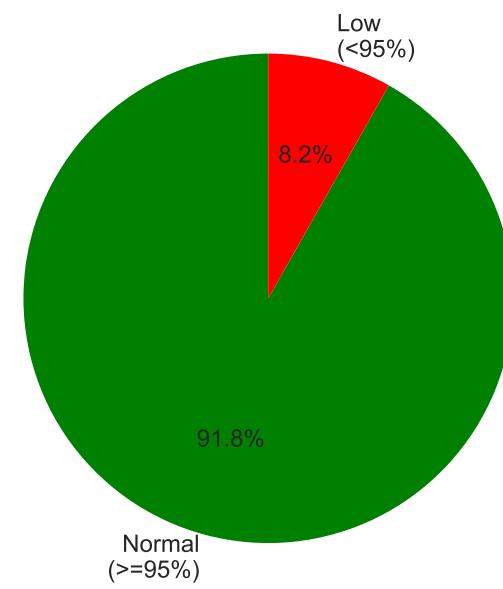
**Respiratory Health**
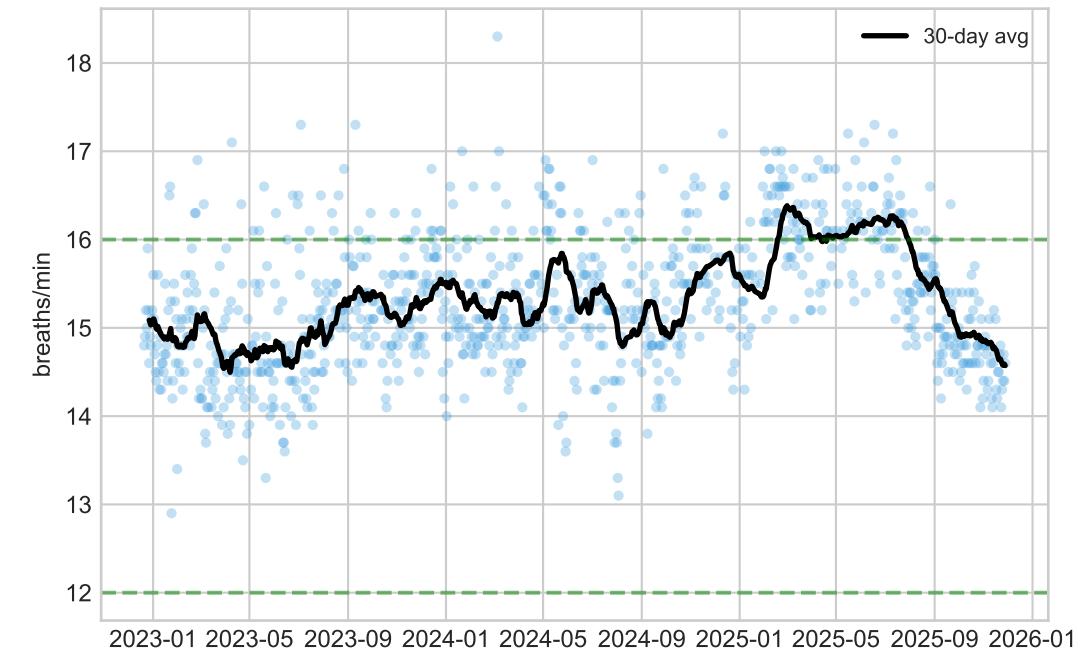
Blood Oxygen (SpO2) - Avg: 96.8%
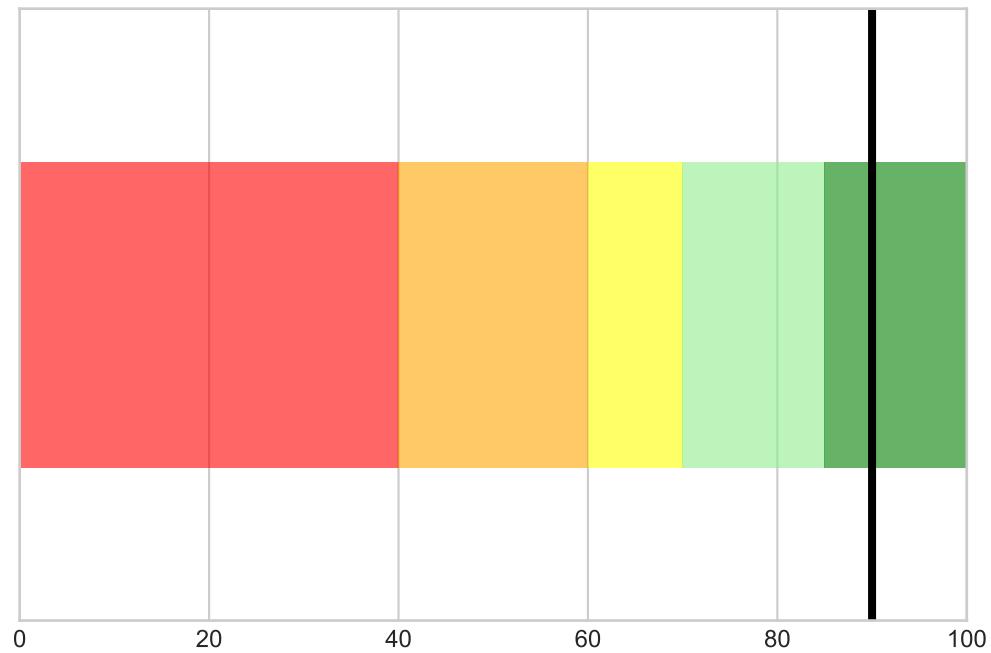
SpO2 Distribution (8.2% low)

Low (<95%)

8.2%

91.8%

Normal (>=95%)

30-day avg
95% threshold

Respiratory Rate - Avg: 15.3 rpm

30-day avg
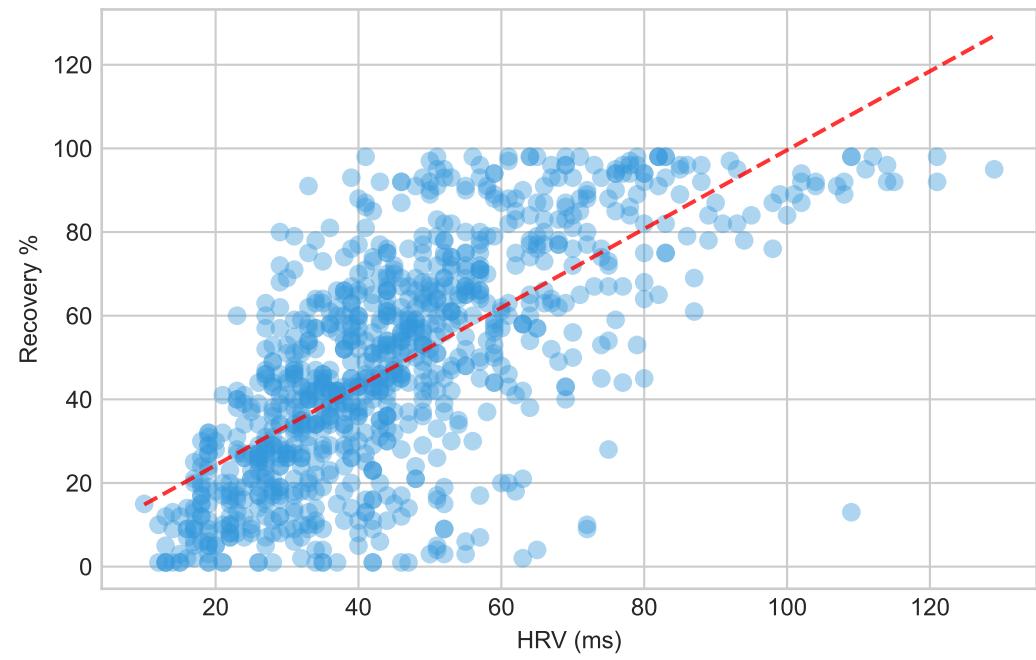
Respiratory Score: 90/100
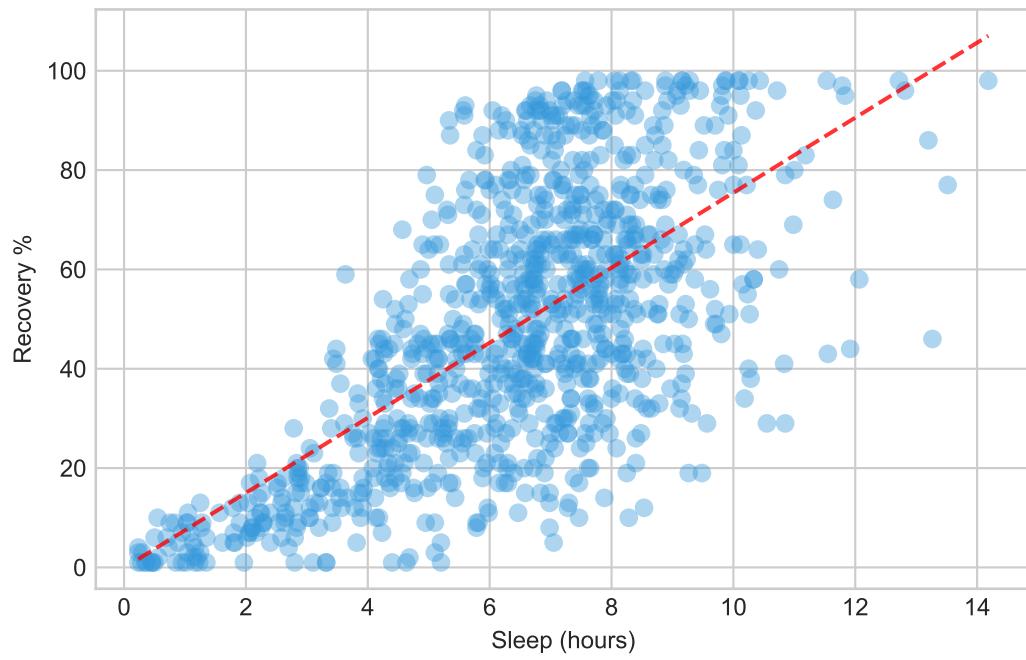
# Correlation Analysis
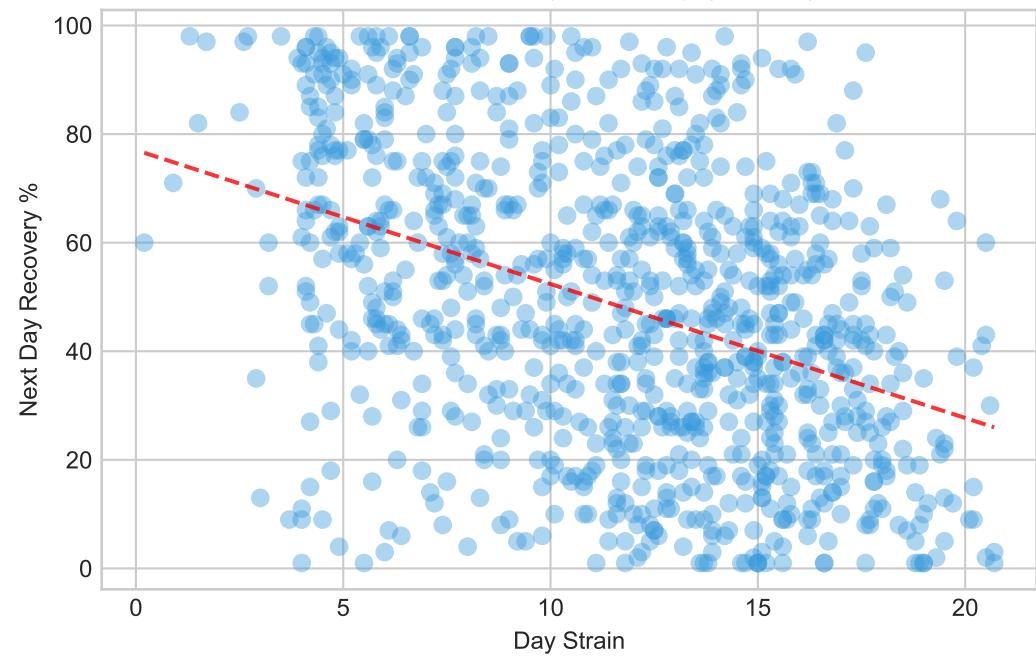
**HRV vs Recovery (r=0.69)**
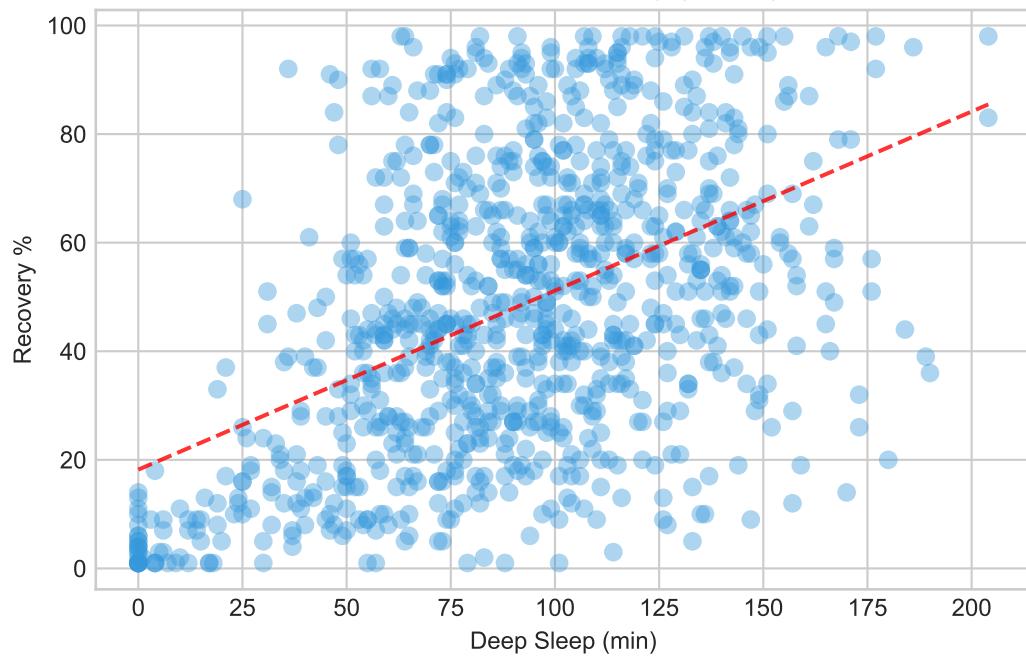
**Sleep vs Recovery (r=0.66)**

**Strain vs Next Day Recovery (r=-0.40)**

**Deep Sleep vs Recovery (r=0.47)**

## RECOMMENDATIONS & ALERTS
============================================================

### ACTIVE ALERTS
_____

[WARNING] High proportion of poor recovery days: 31.9%

### RECOMMENDATIONS
_____

[HIGH] Respiratory
  Finding: 8.2% of nights with SpO2 < 95%
  Action: Screen for sleep apnea. Consider sleep study (polysomnography). Review sleeping position and nasal breathing.
  Note: Frequent desaturations during sleep warrant medical evaluation for OSA.

[HIGH] Sleep
  Finding: Insufficient sleep duration (6.4 hours avg)
  Action: Aim for 7-9 hours. Establish consistent sleep/wake times. Create sleep-conducive environment (dark, cool, quiet).
  Note: Chronic sleep deprivation increases risk of obesity, diabetes, and CVD.

[HIGH] Sleep Debt
  Finding: Chronic sleep debt (69.0 min average)
  Action: Prioritize sleep extension. Consider 20-min naps if needed. Address root causes of sleep restriction.
  Note: Sleep debt accumulates and cannot be fully repaid with catch-up nights.

[HIGH] Recovery
  Finding: High percentage of poor recovery days (31.9%)
  Action: Review training load vs recovery balance. Consider deload weeks. Optimize nutrition, hydration, and stress management.
  Note: Chronic under-recovery increases injury risk and may indicate overtraining.

### METHODOLOGY & CITATIONS
_____

This analysis uses medical benchmarks from:
- American Heart Association (AHA) 2024: https://www.heart.org/en/health-topics/high-blood-pressure/understanding-blood-pressure-readings
- Whoop & Clinical Studies Meta-Analysis 2024
- WHO & CDC Pulse Oximetry Guidelines 2024
- National Sleep Foundation 2024
- Clinical Guidelines (Cleveland Clinic 2024)

For medical decisions, please consult with healthcare providers.