

# Health Analysis Report: Dad (Il-Keun Lee)

## EXECUTIVE SUMMARY

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Name: Dad (Il-Keun Lee)  
Age: 62 years (60-69 bracket)  
Gender: Male  
Analysis Period: 2023-01-21 to 2025-11-27 (1030 days)  
Generated: 2025-11-29 23:26

## HEALTH SCORES

Overall Score: 69/100 (Moderate)

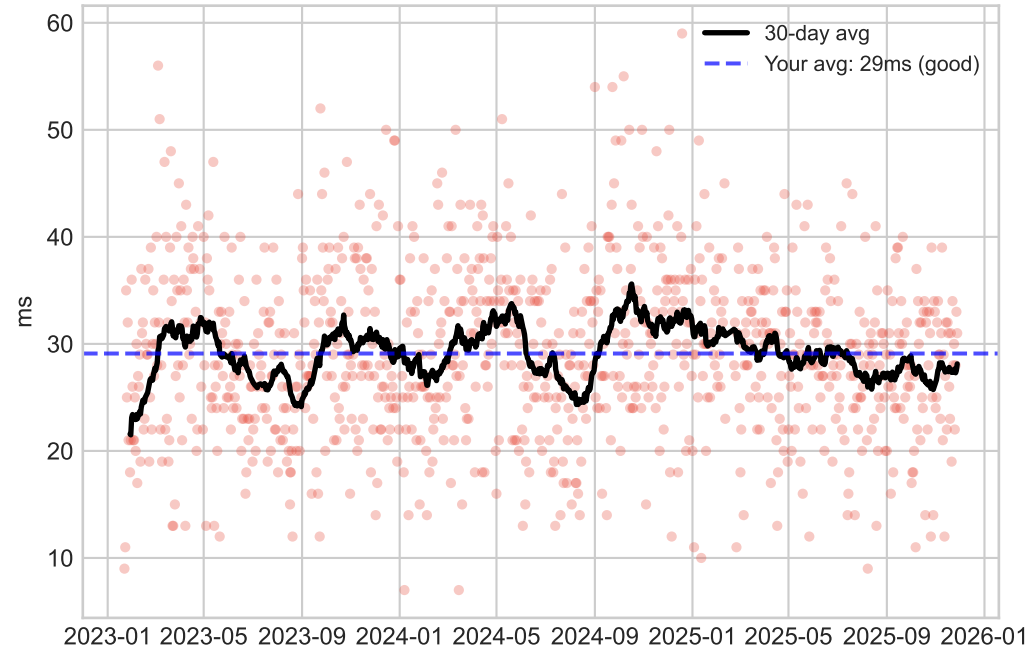
Cardiovascular:	80/100
Respiratory:	40/100
Sleep:	77/100
Recovery:	51/100
Activity:	97/100

## TOP RECOMMENDATIONS

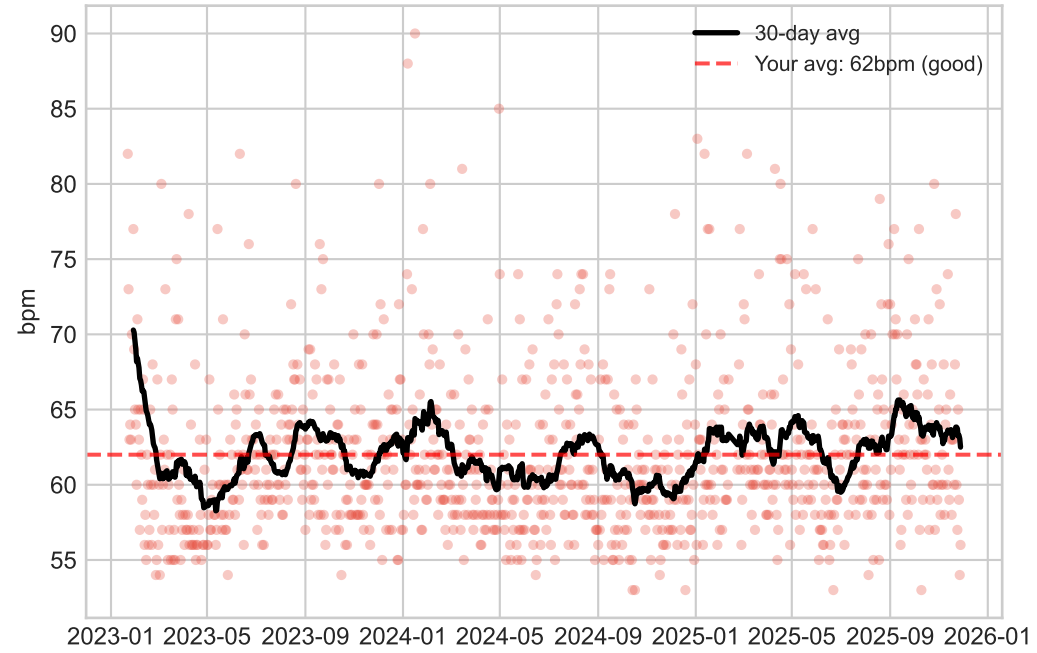
- 1. [HIGH] Respiratory: Screen for sleep apnea. Consider sleep study (polysomnograph...
- 2. [HIGH] Sleep: Aim for 7-9 hours. Establish consistent sleep/wake times. Cr...
- 3. [HIGH] Sleep Debt: Prioritize sleep extension. Consider 20-min naps if needed. ...

# Cardiovascular Health

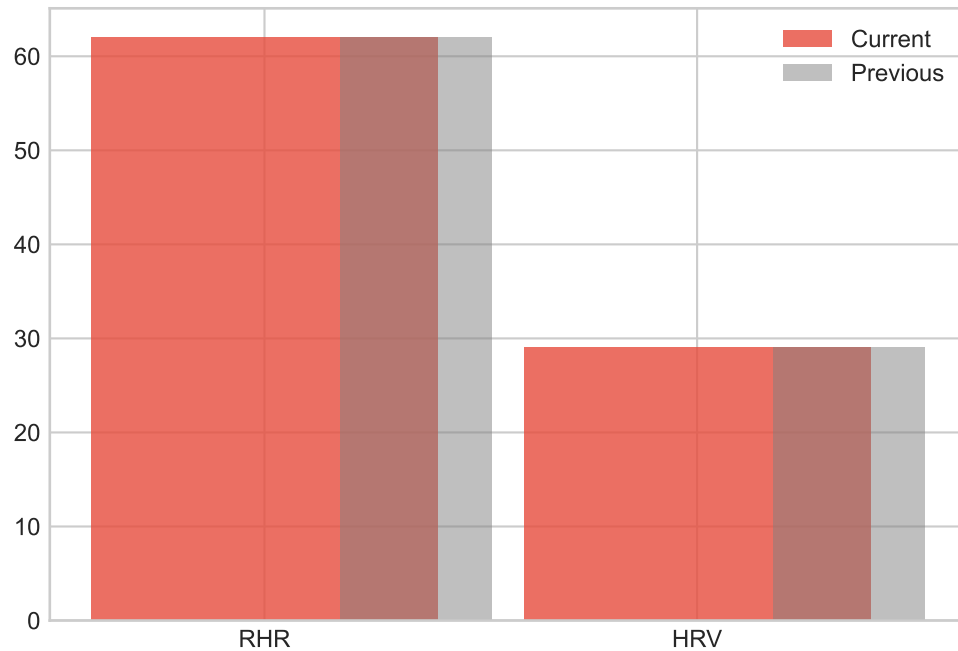
## HRV - -1 ms vs age median



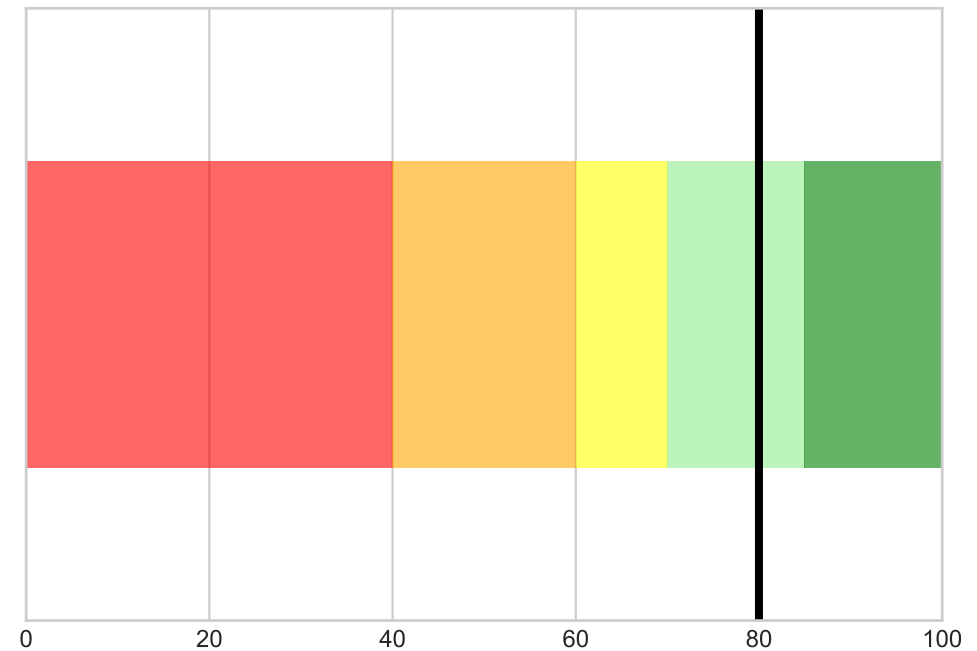
## Resting Heart Rate - -6 bpm vs median



## Current vs Previous Analysis

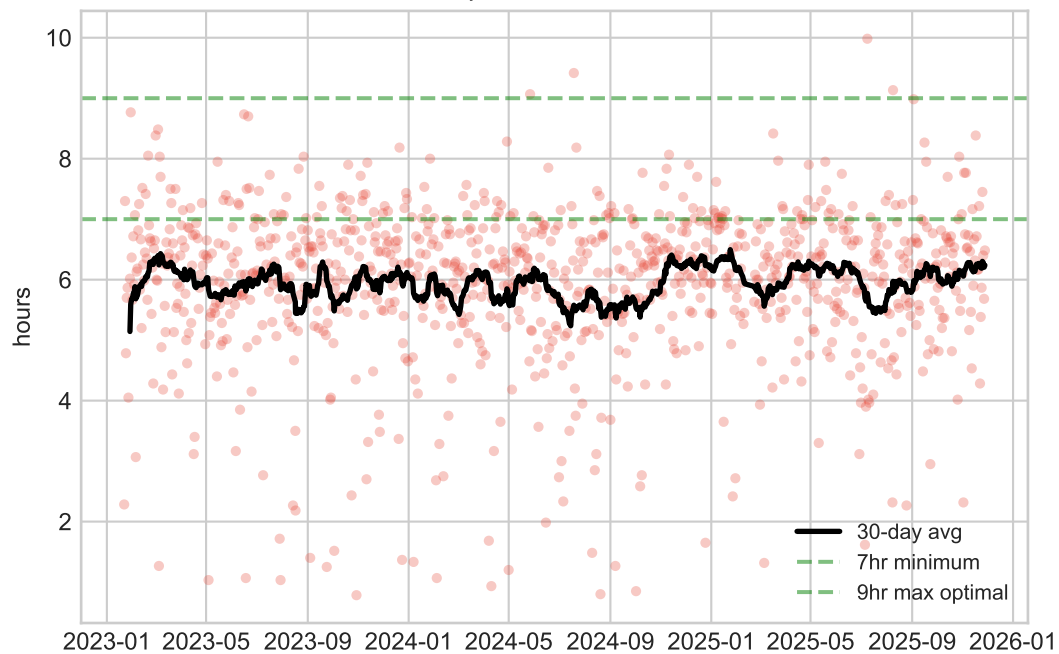


## Cardiovascular Score: 80/100

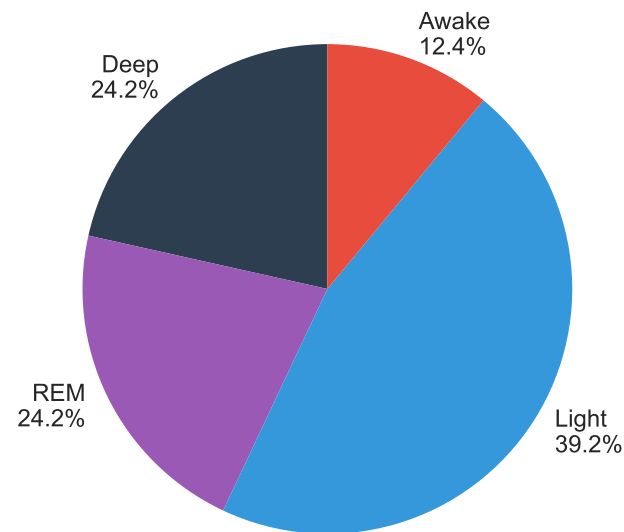


# Sleep Health

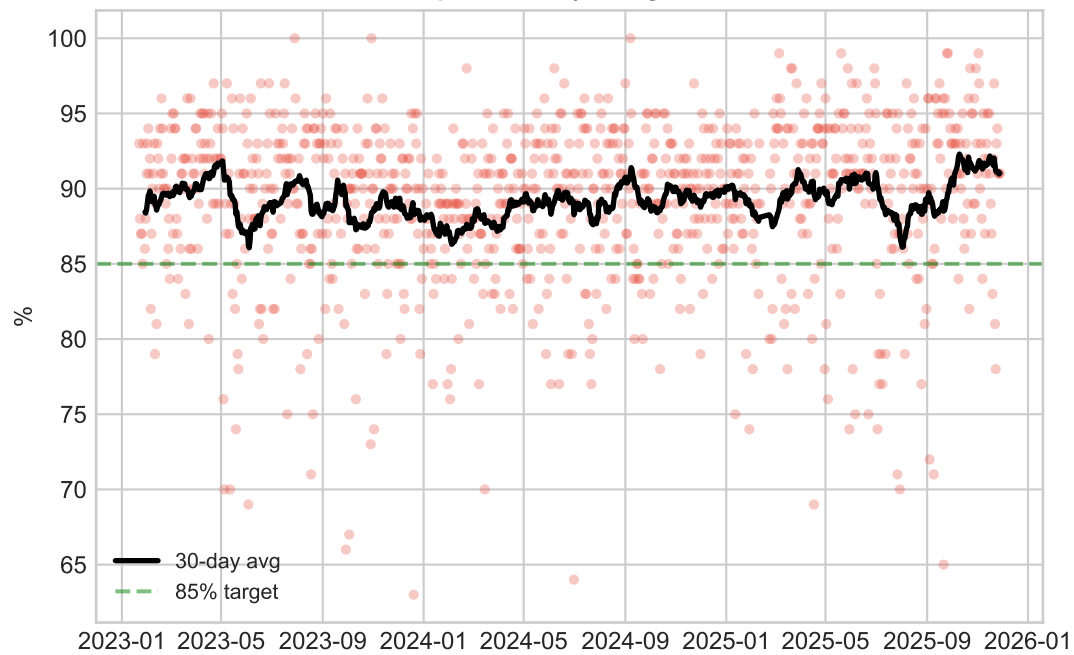
## Sleep Duration - Short



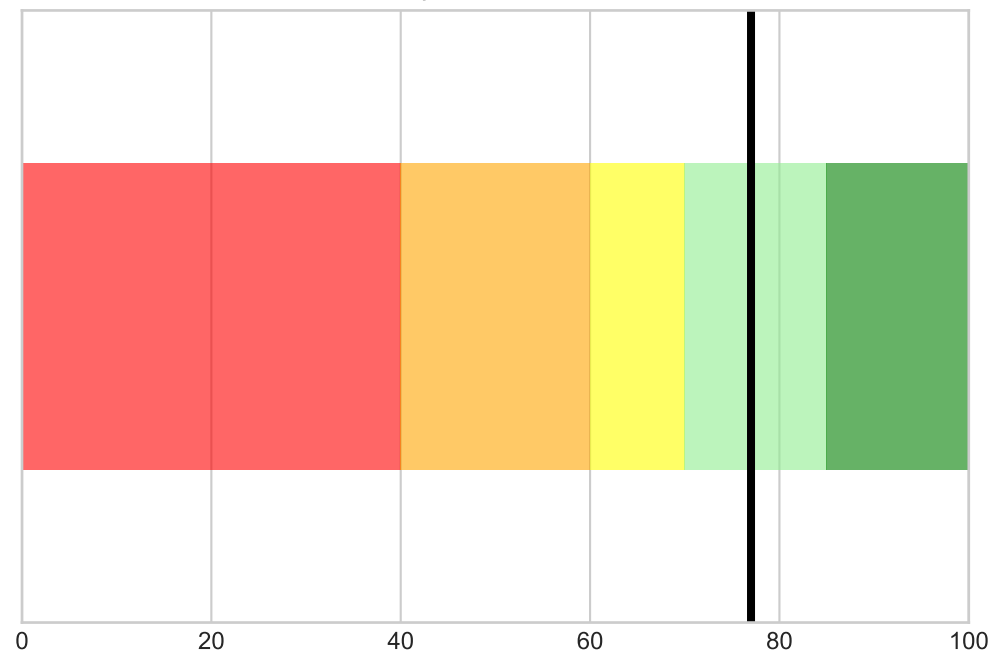
## Sleep Architecture



## Sleep Efficiency - Avg: 89.2%

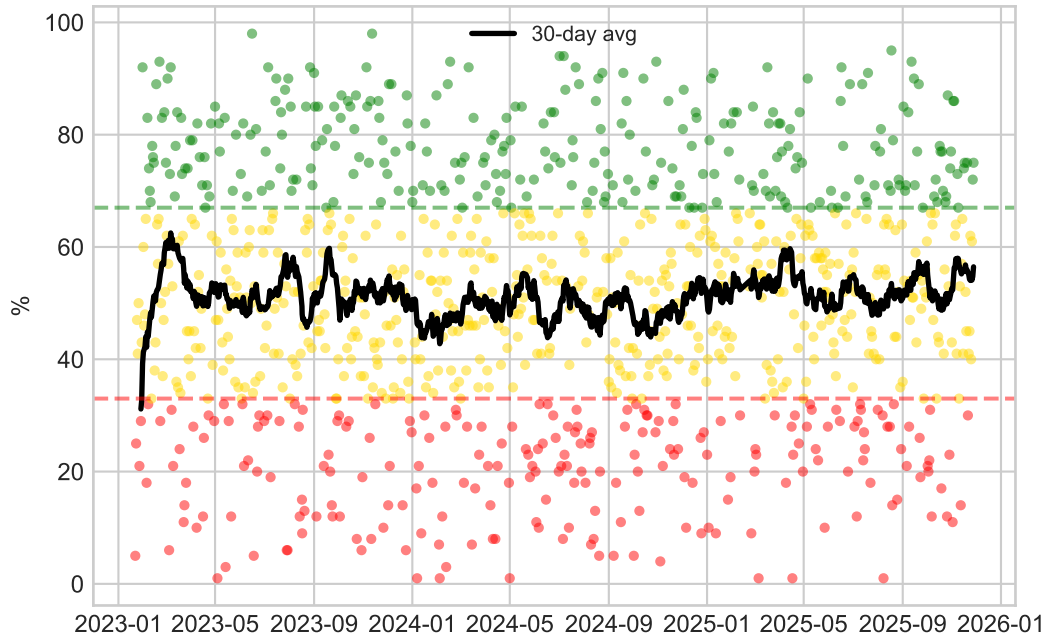


## Sleep Score: 77/100

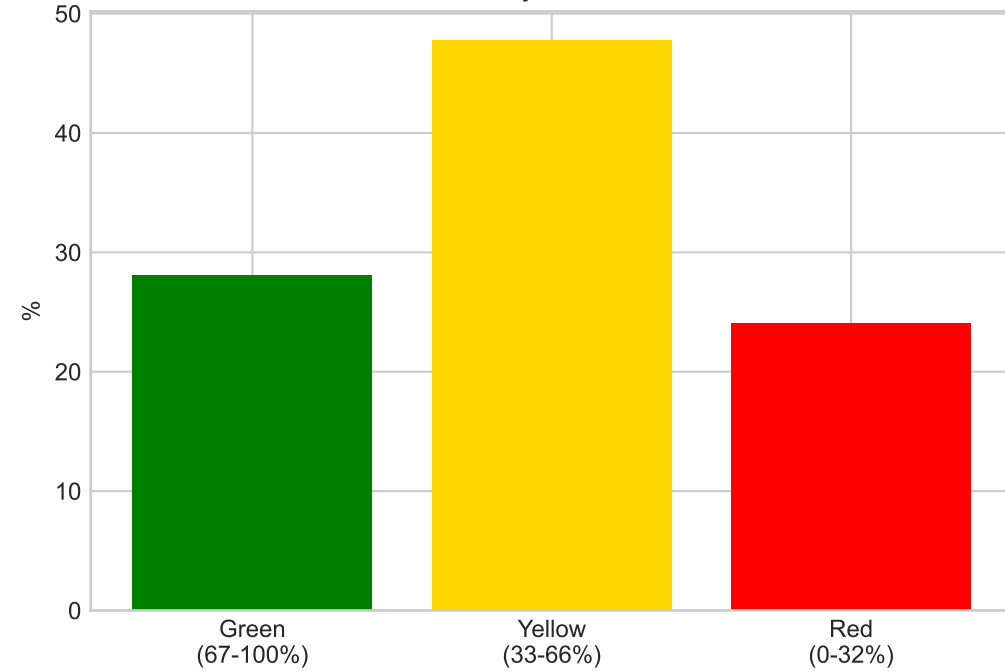


# Recovery & Activity

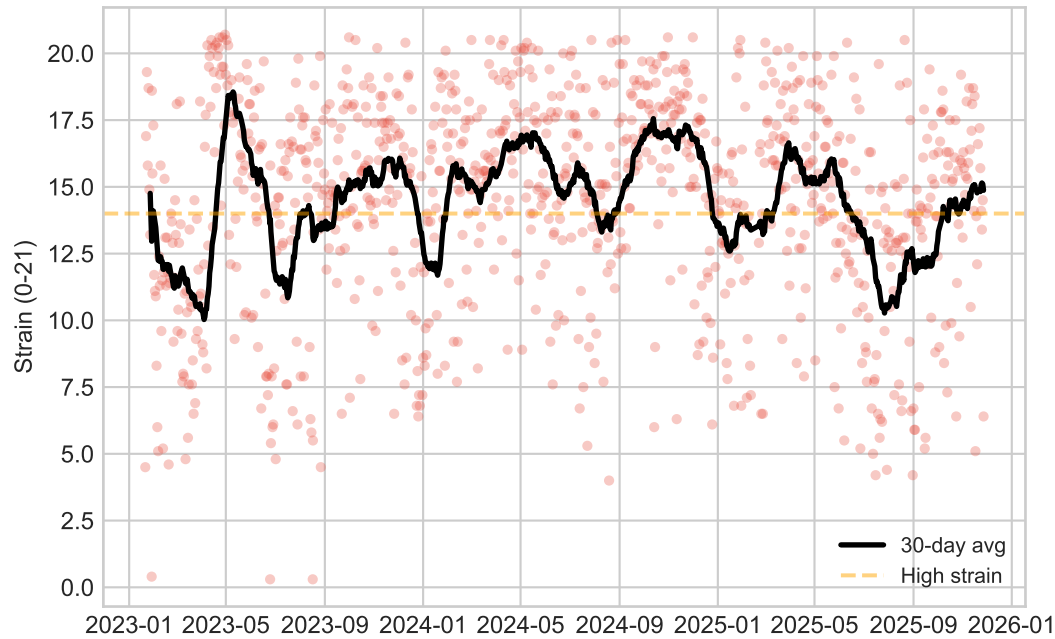
## Recovery Score - Avg: 51%



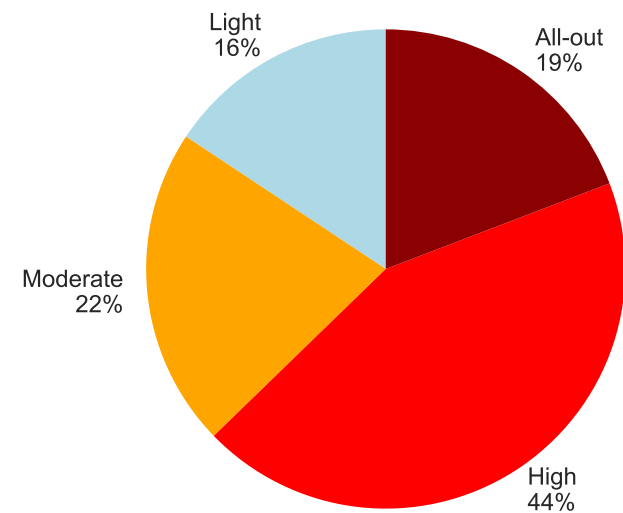
## Recovery Distribution



## Day Strain - Avg: 14.5

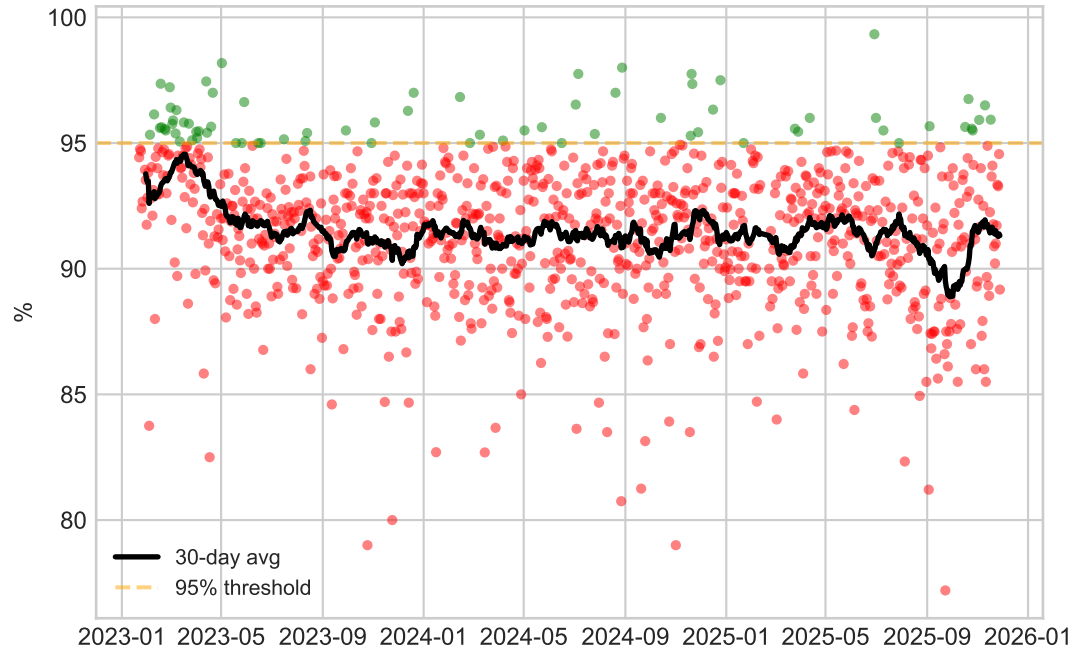


## Activity Intensity Mix

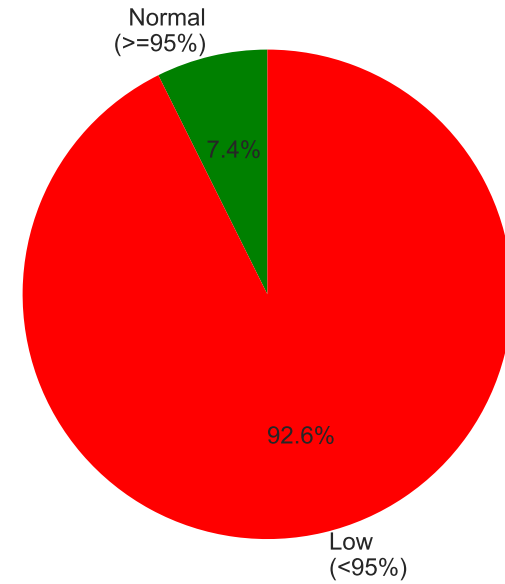


# Respiratory Health

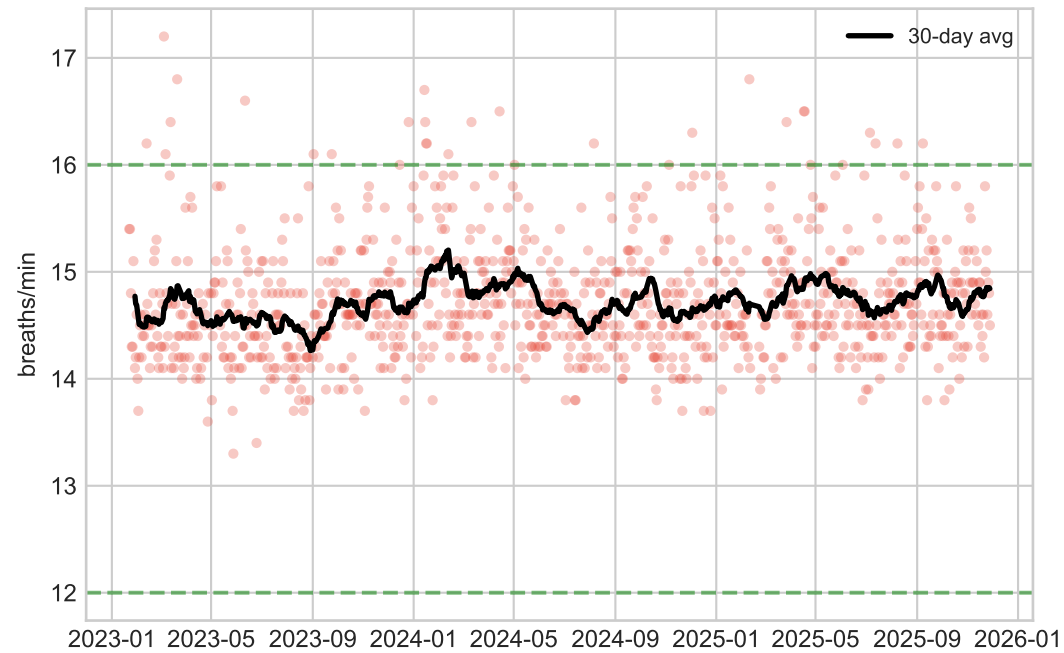
Blood Oxygen (SpO2) - Avg: 91.5%



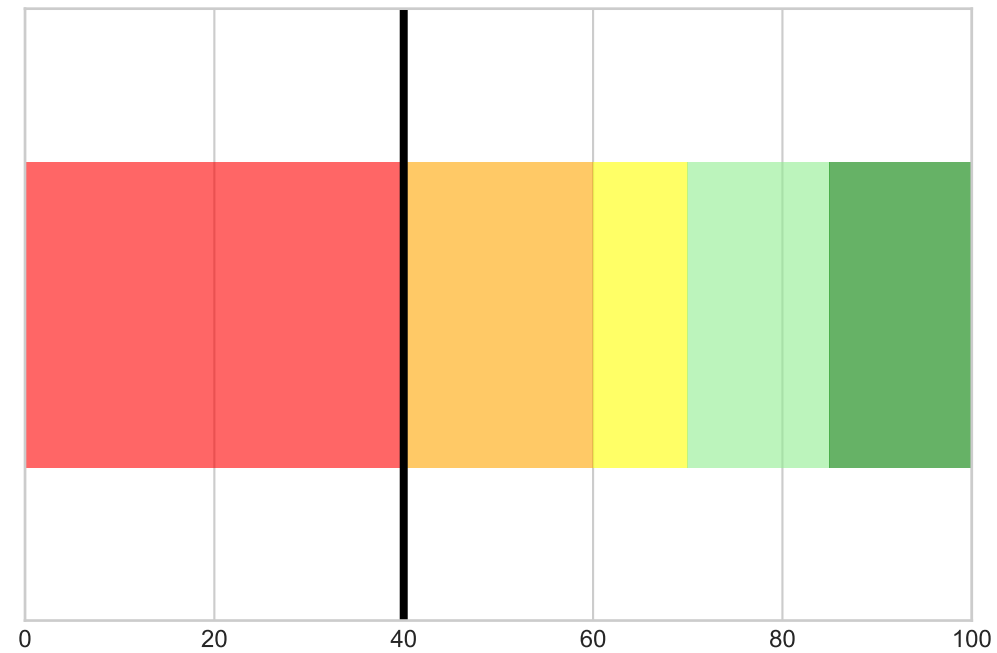
SpO2 Distribution (92.6% low)



Respiratory Rate - Avg: 14.7 rpm

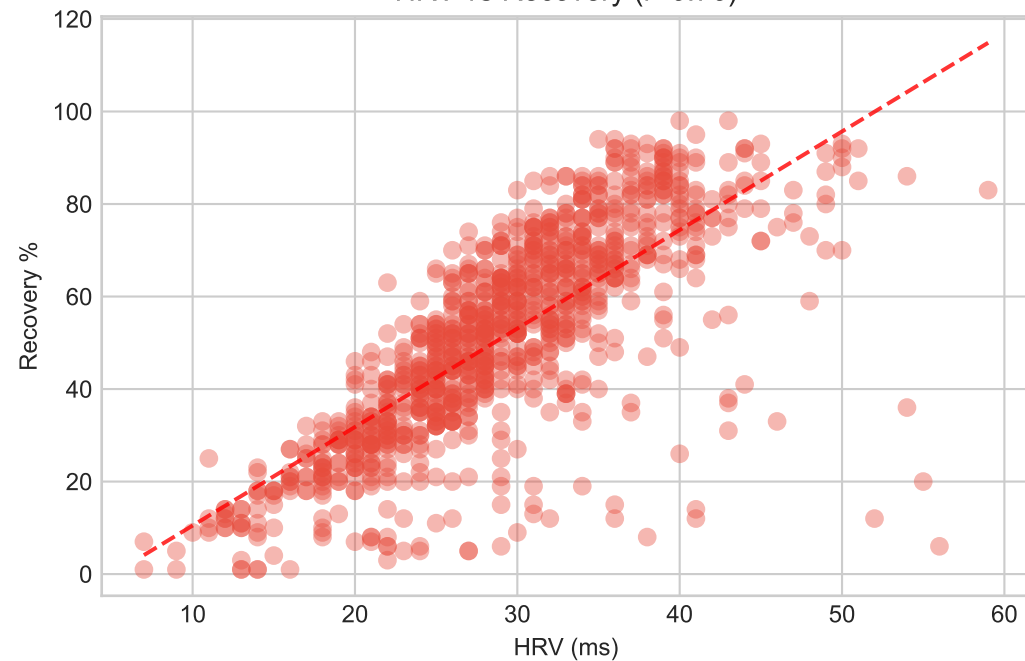


Respiratory Score: 40/100

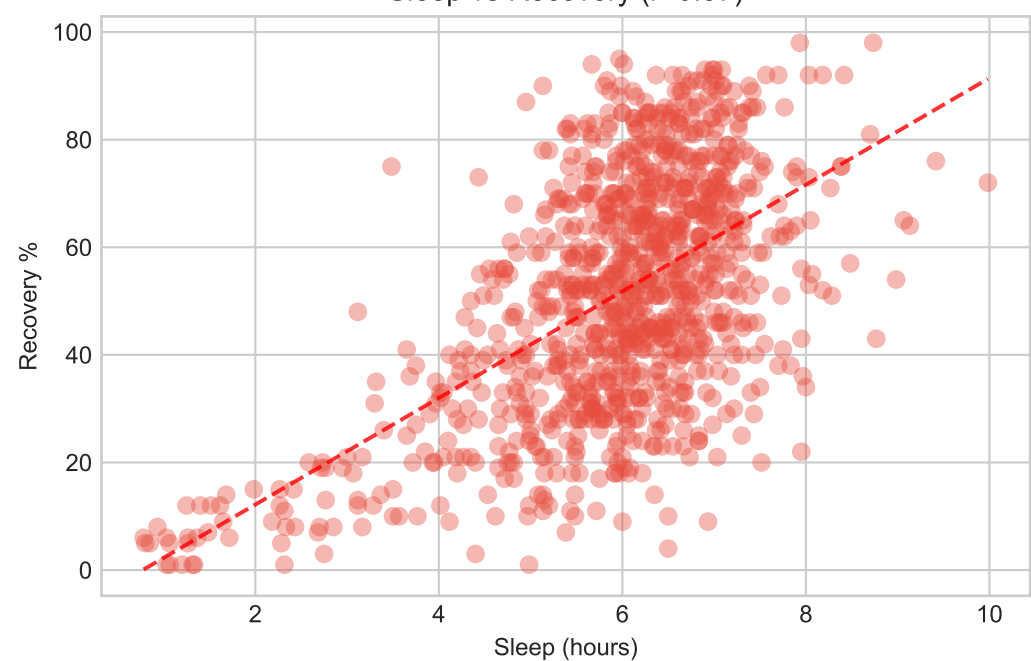


# Correlation Analysis

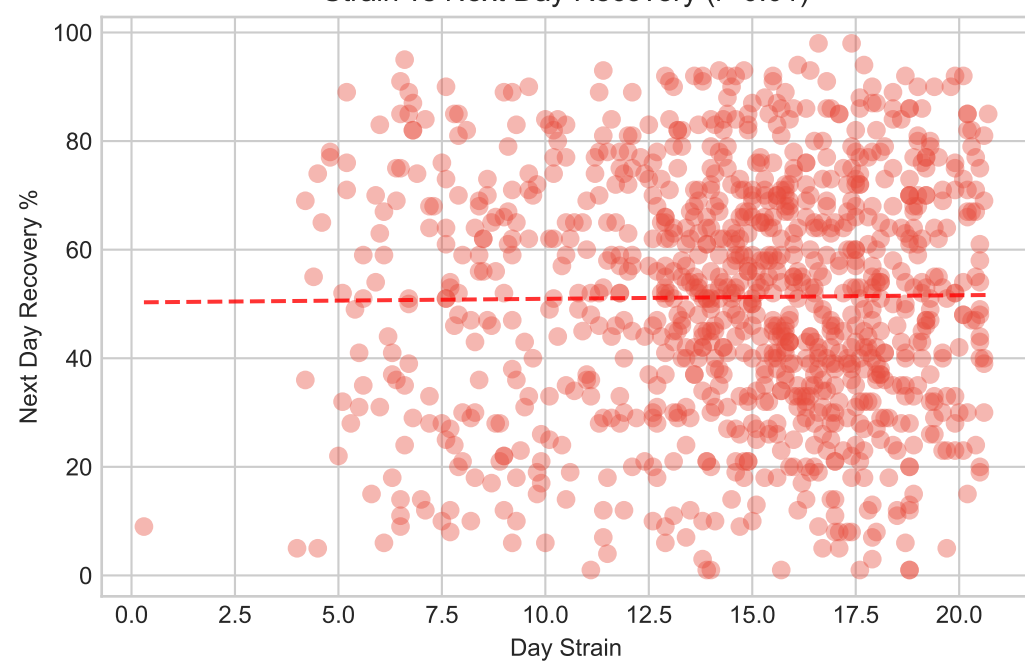
HRV vs Recovery ( $r=0.76$ )



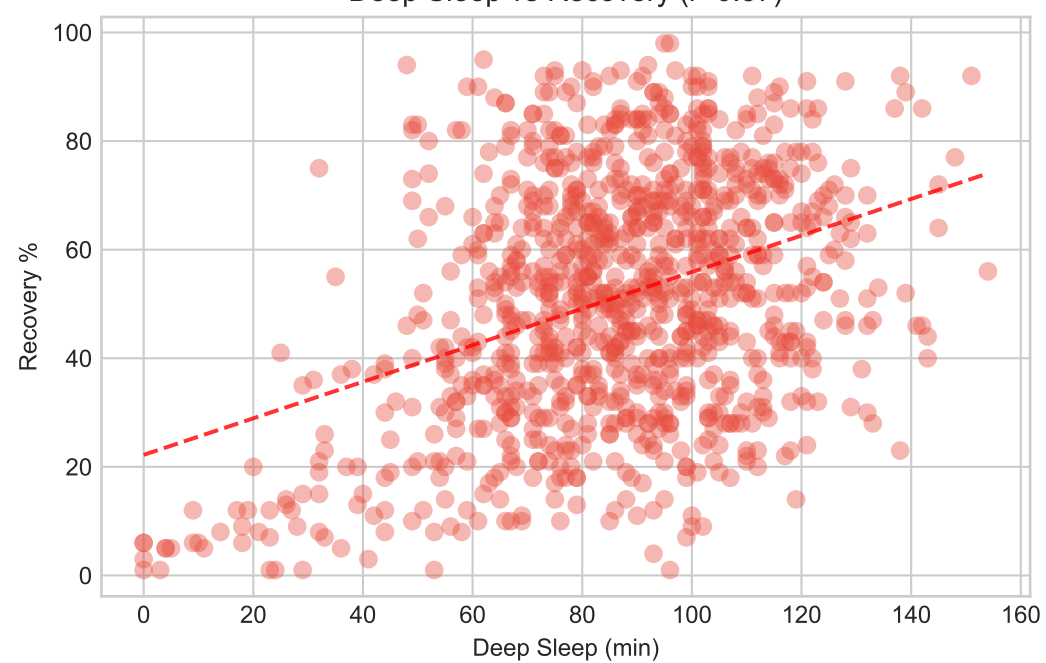
Sleep vs Recovery ( $r=0.57$ )



Strain vs Next Day Recovery ( $r=0.01$ )



Deep Sleep vs Recovery ( $r=0.37$ )



RECOMMENDATIONS & ALERTS

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ACTIVE ALERTS

[CRITICAL] Critical: 92.6% of nights with low SpO2  
[WARNING] Severe sleep debt: 109.0 min average

RECOMMENDATIONS

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- [HIGH] Respiratory  
Finding: 92.6% 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 (5.9 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 (109.0 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 (24.1%)  
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

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- 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.