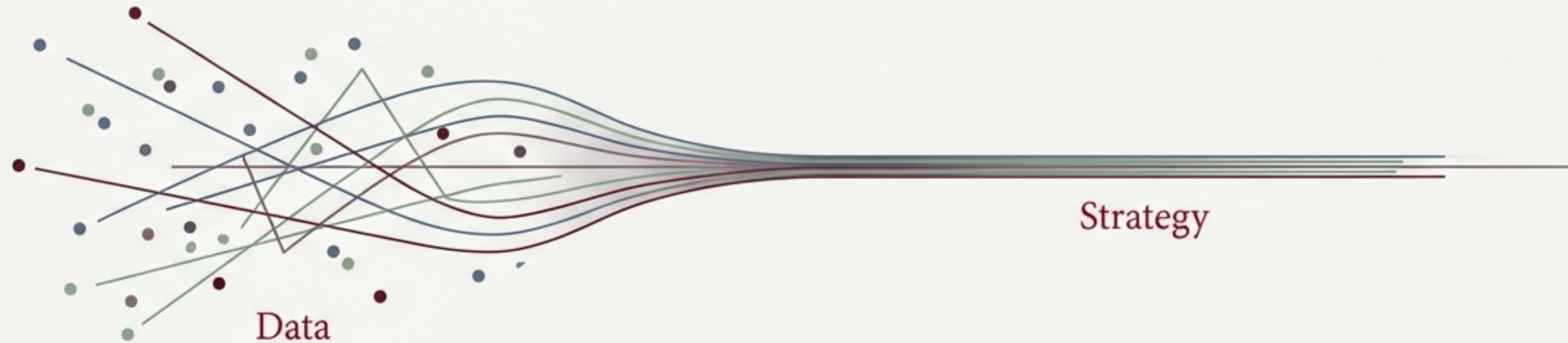


# Performance Diagnostics & Strategic Roadmap



## From Aerobic Base to Thanksgiving Half-Marathon

A comprehensive review of current physiological markers  
and an 8-week prescription for Zone 2 development.

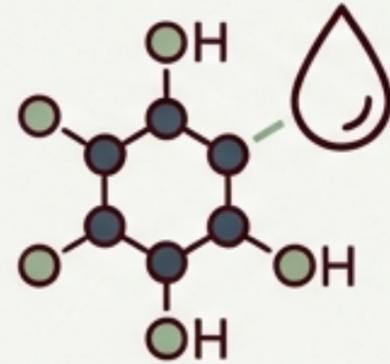
# You are exactly where you need to be

The data confirms a rare but ideal convergence of aerobic endurance training, efficient biomechanics, and metabolic disease reversal physiology.



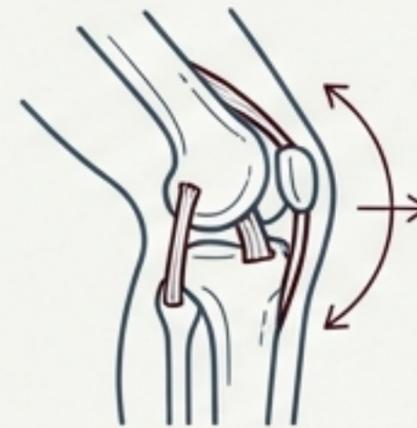
## Aerobic Base

Strong & Improving.  
Zone 2 focus is building  
mitochondrial density.



## Glycemic Control

Excellent stability.  
Fasting glucose at 96  
mg/dL confirms  
regimen success.



## Joint Health

Efficient mechanics.  
Low-impact gait  
minimizes injury risk.



## Durability

Safe progression.  
Plan prioritizes  
consistency over  
intensity.

# The Physiology of Control: Analyzing the 5-Mile Baseline

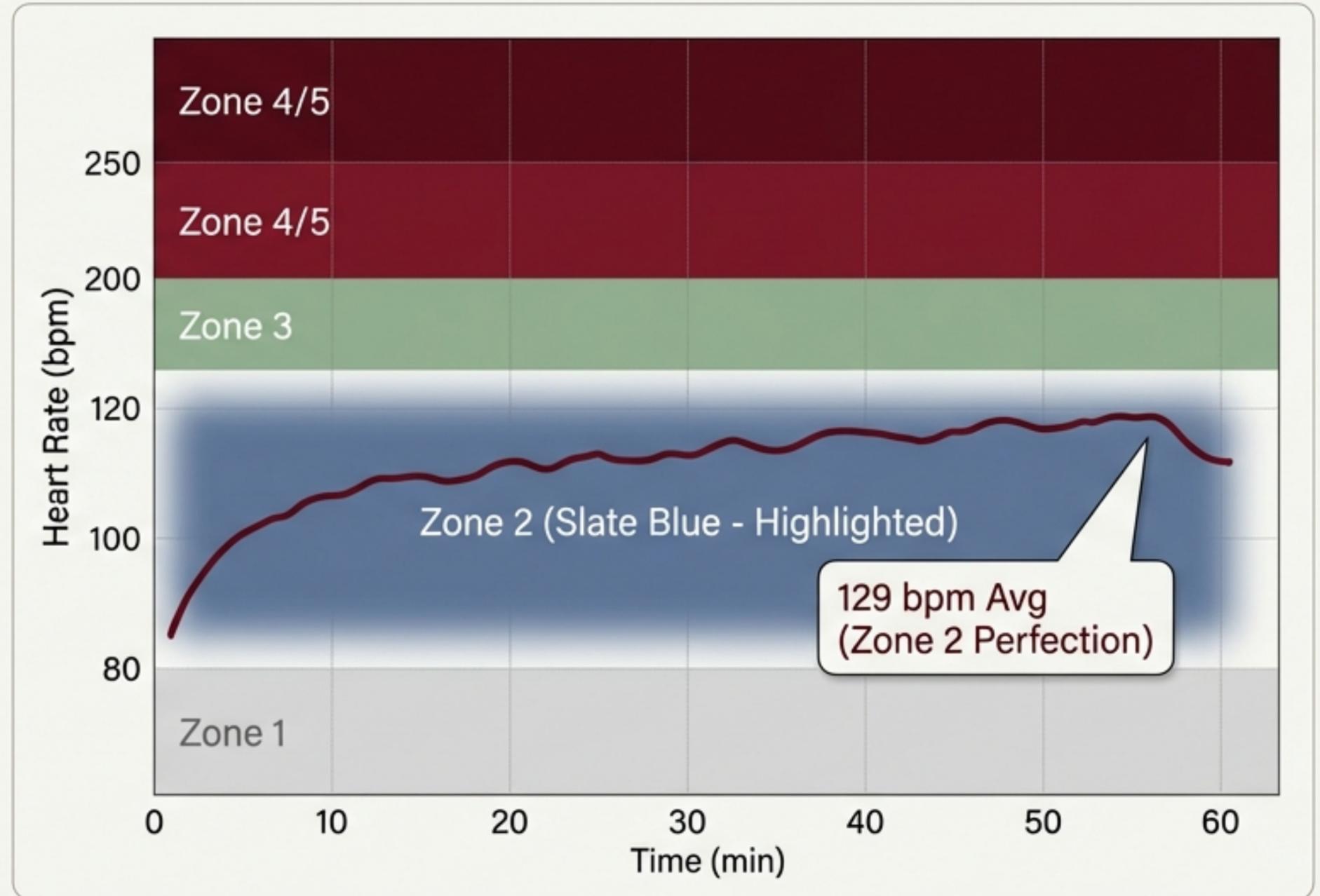
## 12:14 /mi

Average Pace

## 129 bpm

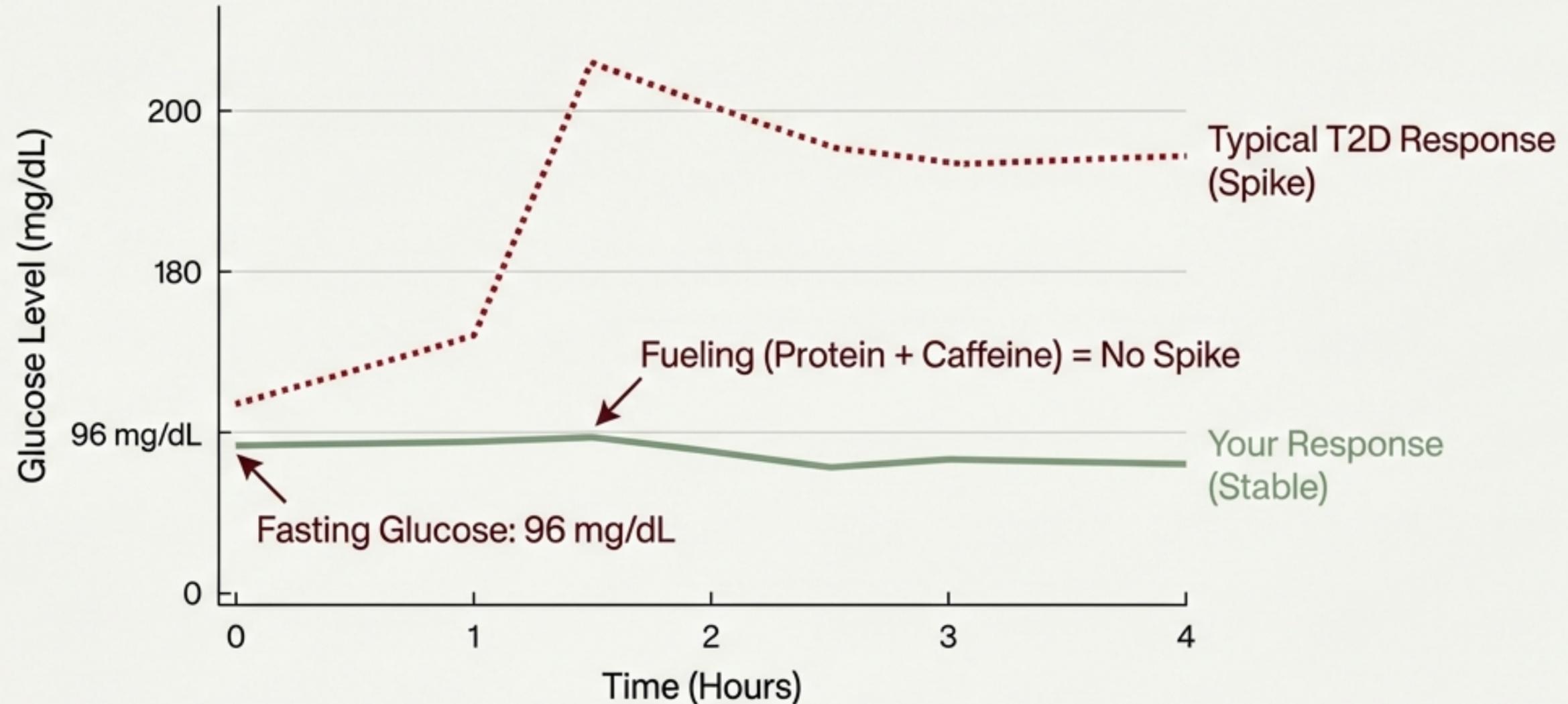
Average Heart Rate

- **Effort:** 2/10 (Light)
- **Training Effect:** Aerobic 2.5 / Anaerobic 0.0
- **Interpretation:** Average HR sits precisely at the upper end of Zone 2. Stamina potential remained at 92%.



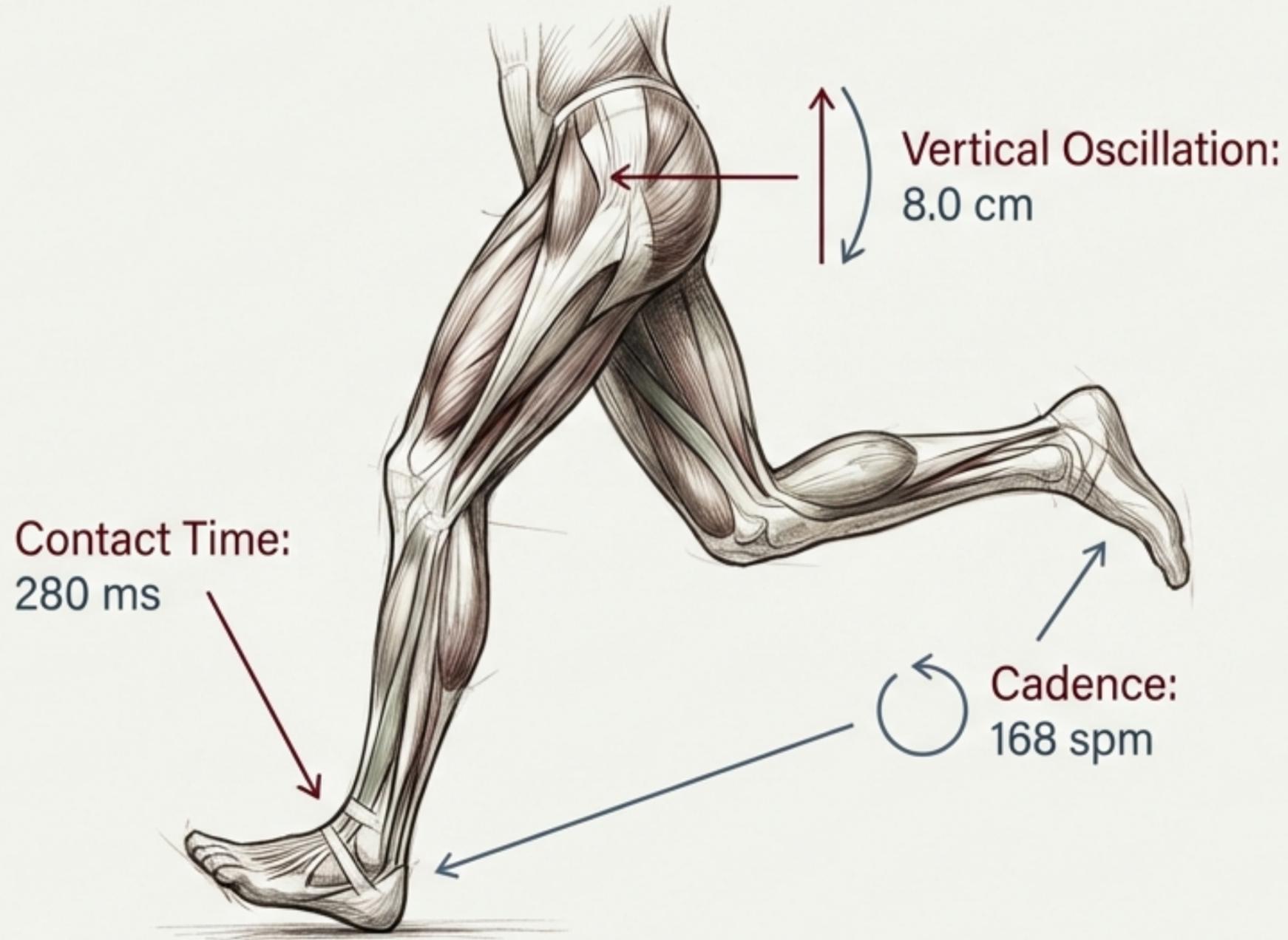
# Metabolic Stability & Glucose Response

Exercise functioning as medicine.



**Insight:** Prolonged aerobic exercise at this intensity maintains glycemic stability. The absence of hyperglycemic symptoms despite fueling indicates significantly improved insulin sensitivity.

# Biomechanics: Efficiency Equals Safety



## Cadence

168 spm Average. Goal range >165 spm reduces joint loading.

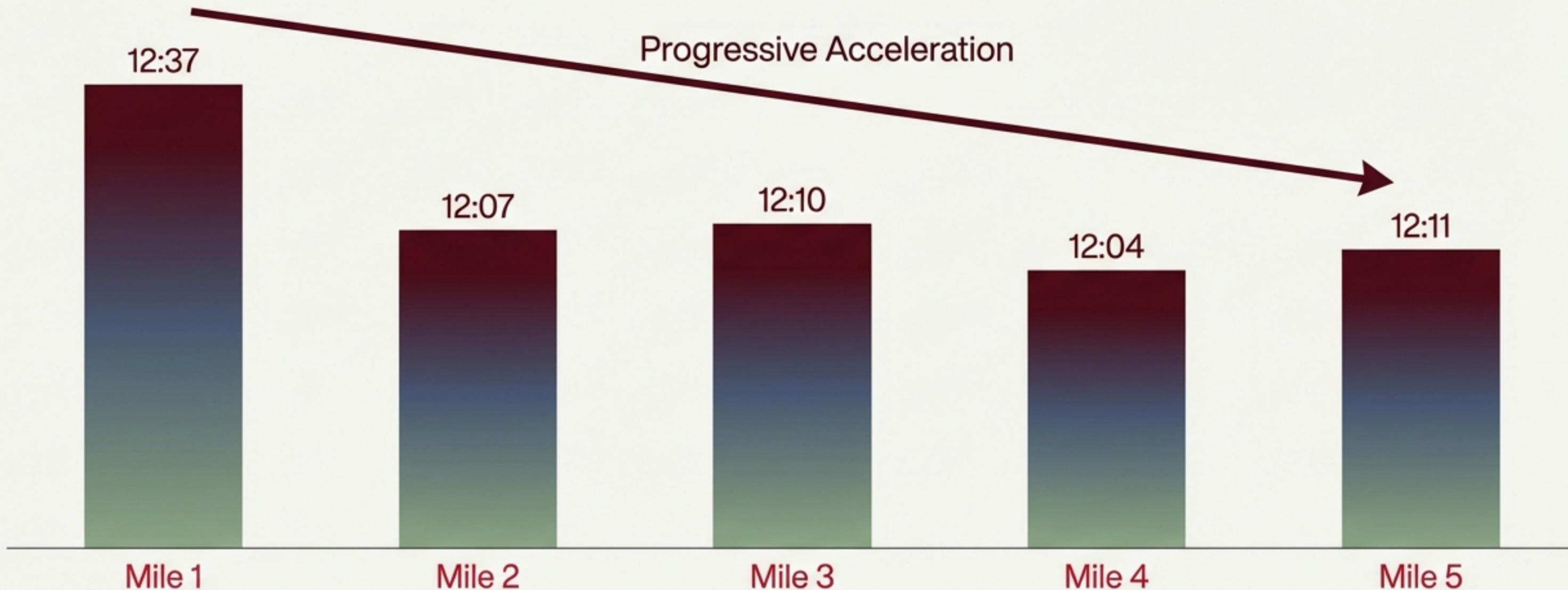
## Power Output

196 W Average / 210 W Peak. Consistent output with no fade.

## Takeaway

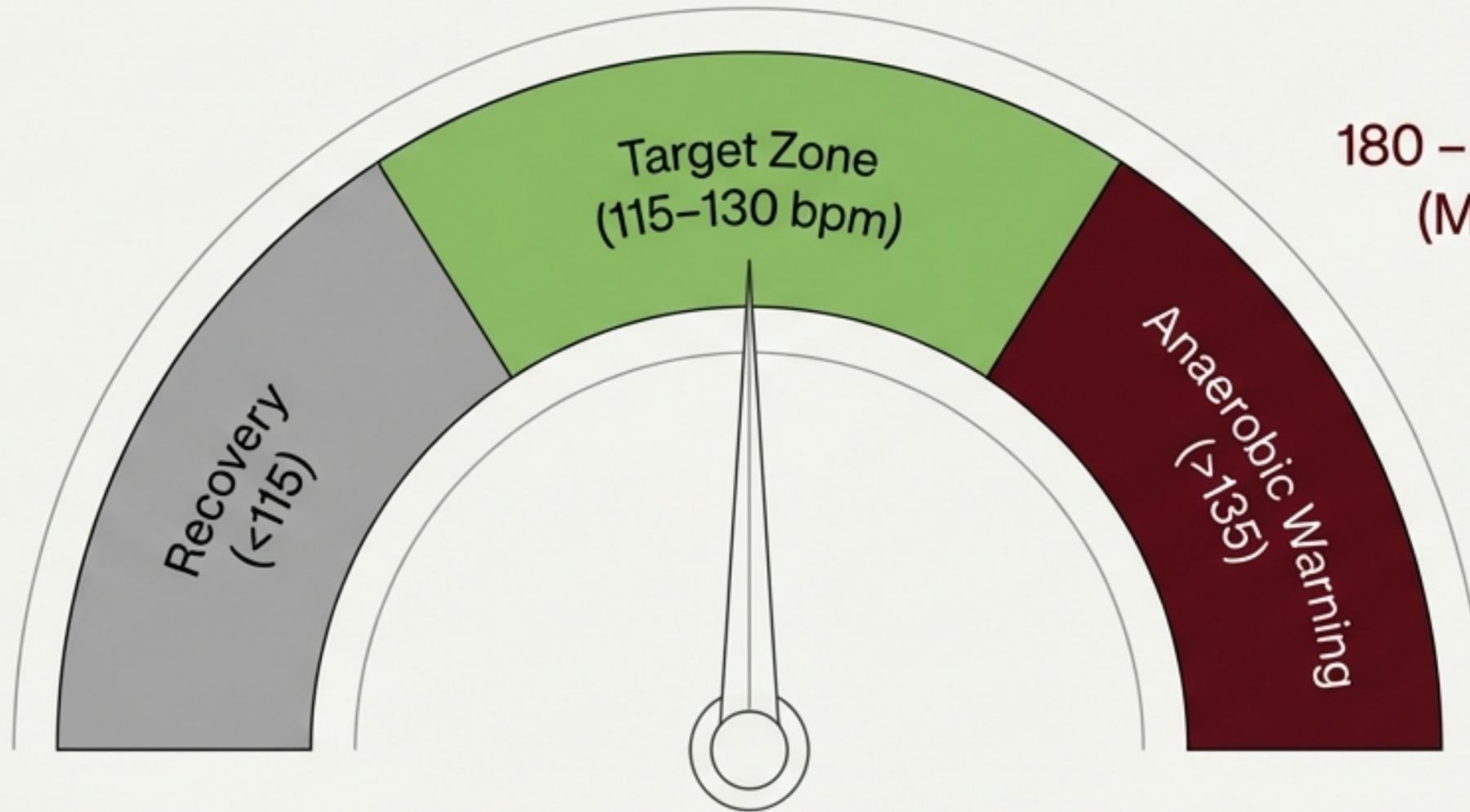
A compact, controlled gait that minimizes injury risk while maximizing economy.

# Pacing Discipline: The Negative Split



Analysis: Acceleration after warm-up with minimal heart rate drift indicates high aerobic efficiency and mental discipline.

# The Methodology: Defining Zone 2" in Deep Oxblood



The Formula:  
 $180 - \text{Age (60)} = 120 \text{ bpm}$   
(Maffetone Ceiling)

Why this range? Maximizes mitochondrial development and fat oxidation.

Limiter: Time-on-feet durability, not cardiovascular fitness.

# The 8-Week Rhythm: Weekly Operating Cadence

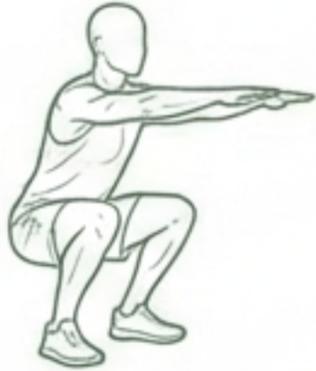
| Monday   | Tuesday                                    | Wednesday                                     | Thursday   | Friday                                     | Saturday  | Sunday                                       |
|--|--|---|--|--|---|--|
| <br>Strength +<br>Mobility | Zone 2<br>Run<br><br>Treadmill<br>(4-5 mi) | Active<br>Recovery<br><br>Walk or<br>Run/Walk | <br>Strength +<br>Mobility | Zone 2<br>Run<br><br>Treadmill<br>(4-5 mi) | <br>Rest<br>(Sabbath) | Long Zone<br>2 Run<br><br>Progression<br>Run |

# Volume Progression: The Long Run



# Durability Protocol: Strength & Mobility

Mondays & Thursdays (20–25 mins). Repeat Circuit 2x.



Bodyweight Squats x12



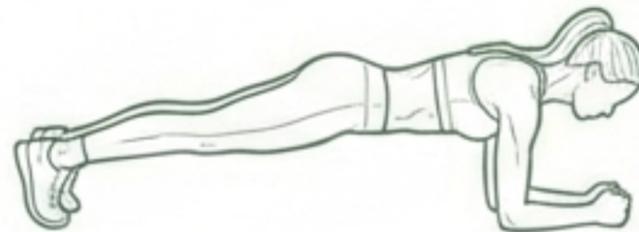
Step-ups x10 (ea leg)



Calf Raises x15



Glute Bridge x12



Plank x45 sec



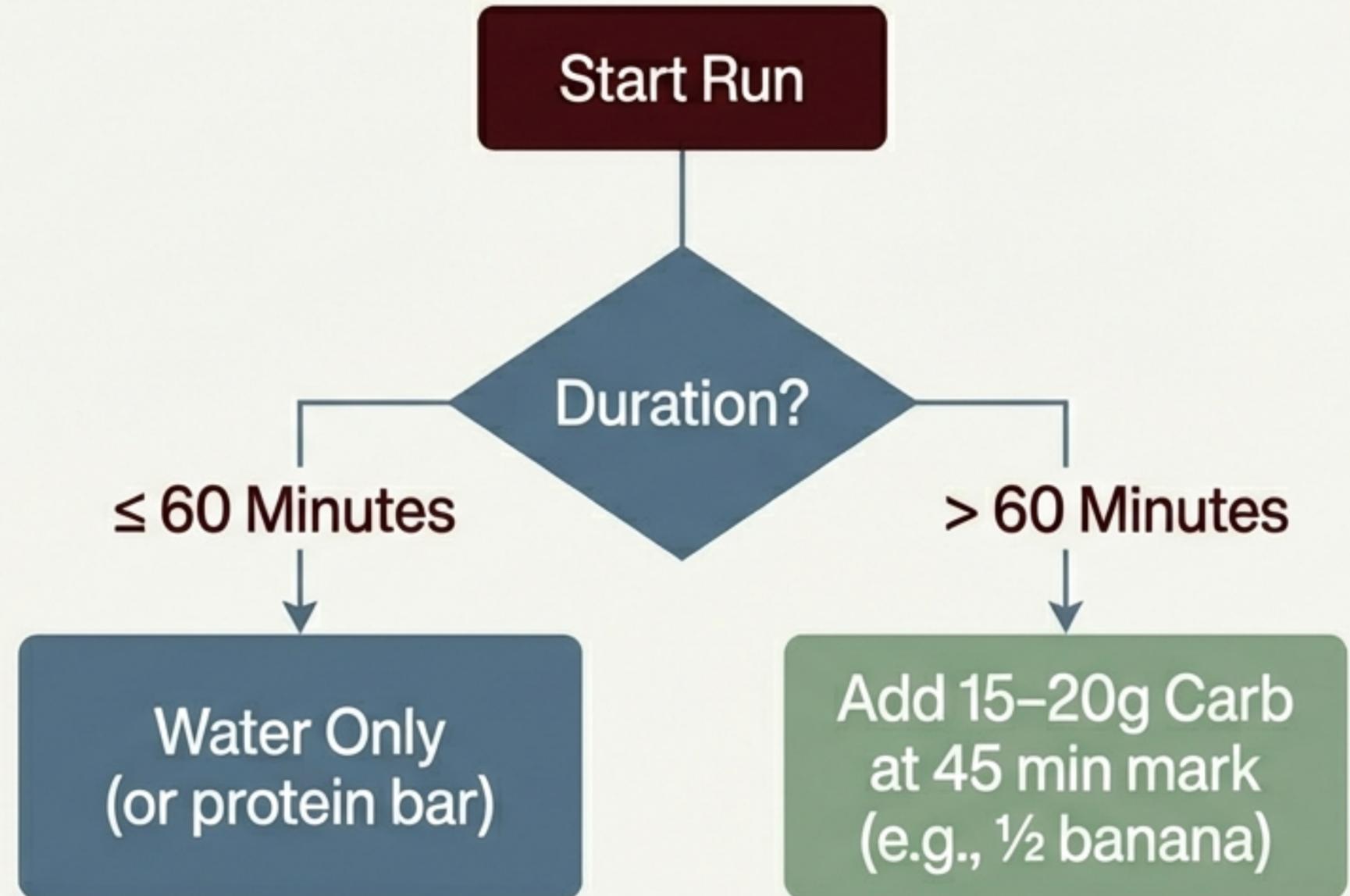
Side Plank x30 sec (ea side)

Goal: Improve running economy and lower ground contact time.

# Metabolic Management: Monitoring & Fueling

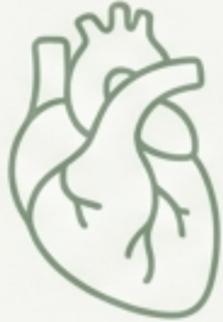
## Glucose Checks

- **Daily:** Morning Fasting (Target: 80–100 mg/dL)
- **Weekly:** Post-run check (15 min after long run)



**SAFETY RULE:** If glucose < 70 mg/dL → Stop and fuel immediately.

# Guardrails & Safety Protocols



## Heart Rate Cap

If HR > 135 bpm → Slow down to walk/jog until it recovers.



## Injury Prevention

If joint pain persists >48 hours → Reduce next long run by 1 mile.



## Form Correction

Aim for 170–175 spm cadence as speed naturally increases over the weeks.

## Adaptation Goal

By Week 8, HR at 12:00/mi pace should drop ~5–8 bpm.

# The Horizon: January to November



*“This plan preserves aerobic base, glycemic control, and joint health simultaneously.”*