

Phoenix Mercury Athlete X

Performance Case Study & Program
Recommendations

Athlete Notes

- Position: Point Guard
- In season notes
 - Drop in performance during in season play
- Injury history
 - Previous history of Achilles tendon soreness issues

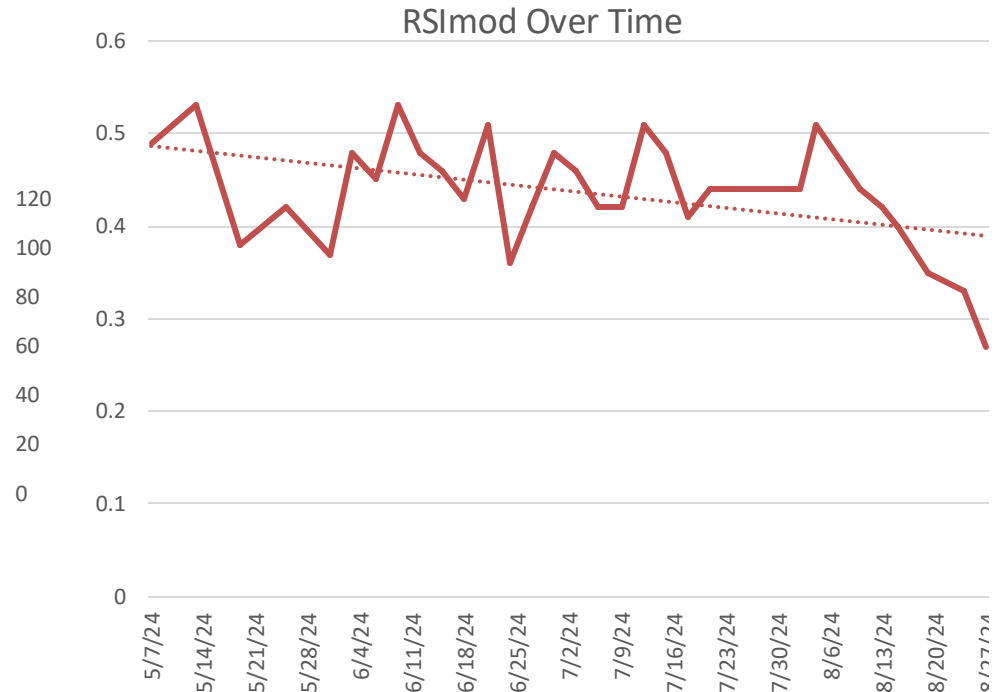
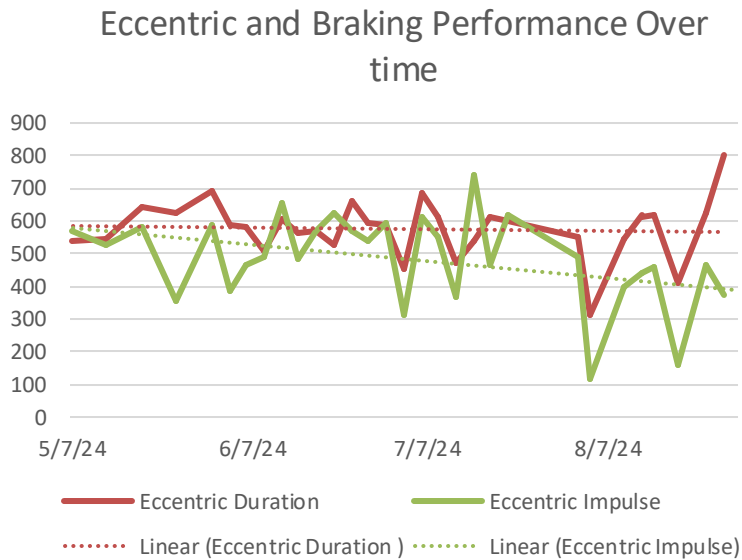
Athlete Offseason Goals

1. Improve “explosiveness” coming off screens and getting downhill
2. Mitigate Achilles soreness and any drops in performance for upcoming season

Identifiable Issues found in Data

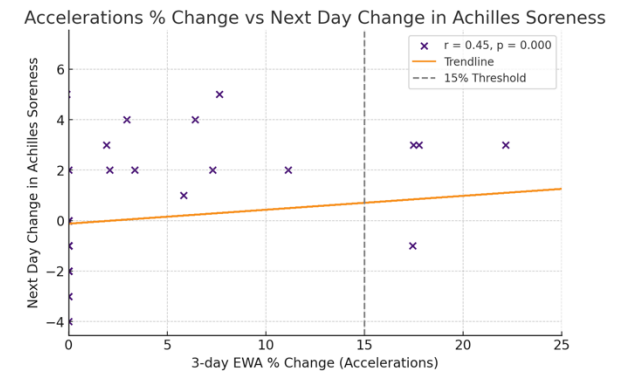
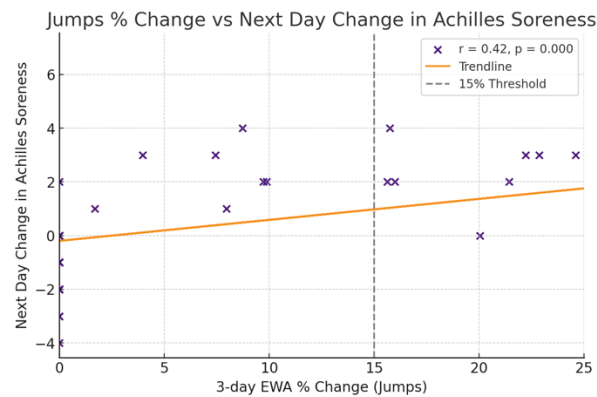
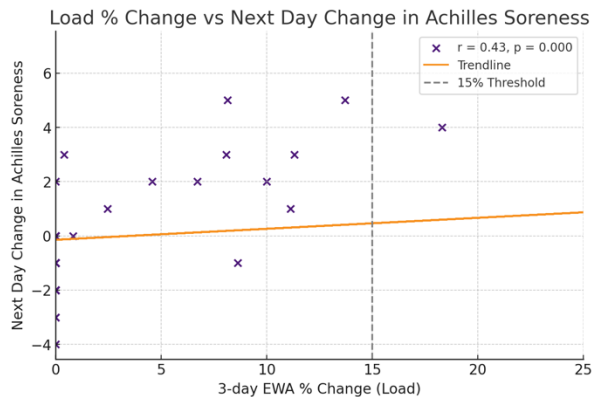
1. Poor Load Accumulation/Management
2. Poor Achilles Tendon Health and Performance

Problem: Load Mismanagement & Fatigue



- Neuromuscular Readiness measures are decreasing over time

Problem: Workload & Achilles Soreness



- As workload increases, change in the next day's Achilles soreness also increases.
- At 15% threshold, tend to see greater increases.

Solution: Load Management & Recovery Optimization

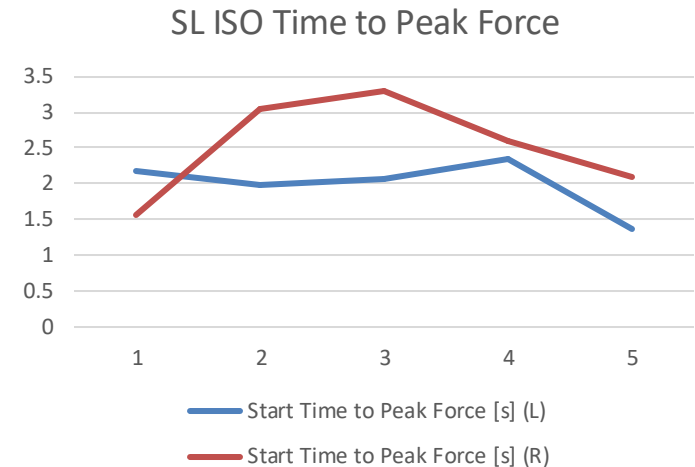
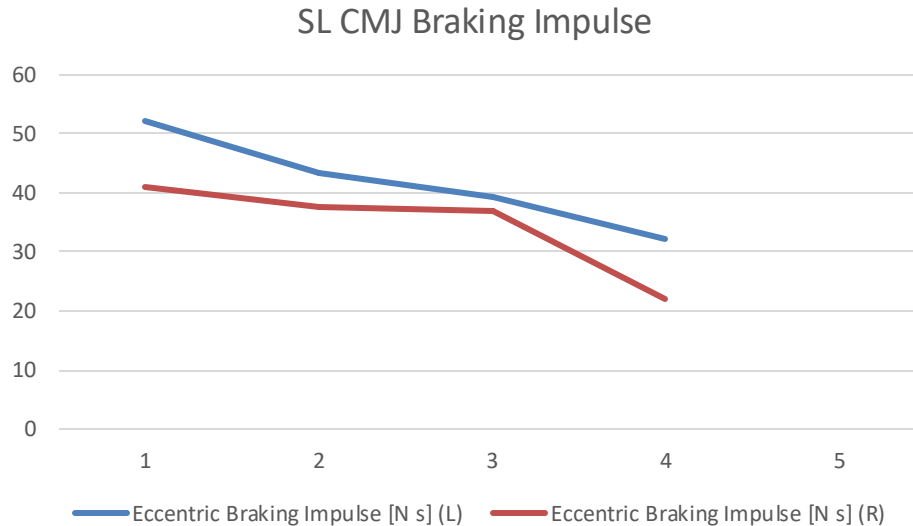
1. Implement Load Accumulation Program

- Develop the ability to manage in-season loads by progressively increasing the athlete's capacity, starting during the off-season and pre-season.
- Consider the following:
 - Use the Athlete Load Monitoring System (ACWR) to gauge and ensure the athlete does not enter a state of overload. The optimal range is 0.8-1.3, known as the “Sweet Spot” (Tim Gabbet).
 - Ensure there is variation in training load on different days by implementing a high-low model. This approach will help guarantee adequate recovery and ensure the athlete is continuously progressing toward improved fitness.
 - Continuously monitor the athlete’s progress in building these capacities through neuromuscular readiness testing, such as Countermovement Jump (CMJ).

2. Proactive Recovery Planning on High Load Days (Sleep, nutrition, etc.)

3. Use Wellness Monitoring to Adjust Training Daily

Problem: Poor Right Leg Performance for Time-Based Movements



- Right leg slower to generate force.
- Potential Achilles stiffness deficiency (or tendinopathy).

Solution: Isometric Plan for Achilles Health And Performance

Example Isometric Plan:

	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5
TYPE	LI-LD YEILDING ISO	HI-SD YIELDING ISO	LI-LD PUSH ISO	HI- SD PUSH ISO	BALLISTIC PUSH
SETS	5x5	5x5	5x5	5x5	5x5
DURATIO N	30sec	8sec	8sec	5sec	1sec

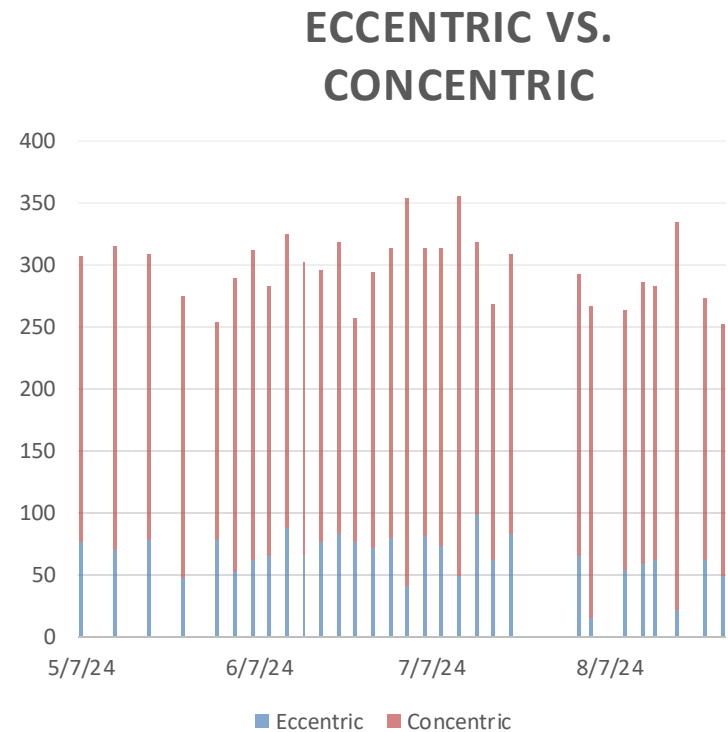
**LI = Low Intensity
**HI = High Intensity
** LD = Long duration
**SD = Short duration

***This plan aims to address potential Achilles tendinopathy through a phase of stress relaxation, utilizing long-duration yielding isometrics (Keith Baar). The second approach is to increase muscle stiffness through a progression of these isometrics (Alex Natera). This approach will optimize time-based activities, such as the rate of force development, making the athlete more explosive.

However, the primary concern is to reduce soreness in the athlete, as their health is the most important priority.

Additional Observations: Eccentric Vs. Concentric Utilization in CMJ

- Athlete tended to have large discrepancies in eccentric recruitment versus concentric requirement in their jump.
- However, this could be a result of the Achilles tendon issue. Therefore, we must address this first before we can prescribe additional training.



Summary & Key Takeaways

- Load drives soreness and fatigue
- Soreness impacts performance
- Targeted load management & isometrics drive performance & health