Reconditioning to Sport: Focusing on <u>the athlete</u> not the injury

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Thank you.....

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Why Reconditioning?

- We are frequently enamored by....
 - Injury
 - Weakness
 - MOI
 - body part
 - Joint
 - rehab program
 - Exercises



• Ultimately seeing/treating the individual as their injury/impairment



Why Reconditioning?

- We forget everything else
 - The body
 - Sport/demand
 - Detraining effects
 - Psycho-social effects



Objectives

- Distinguish between Reconditioning vs. Rehabilitation.
- Categorize what the focus is, the individual or injury.
- Explain when to starting reconditioning activities.
- Construct a robust reconditioning program.



Rehabilitation vs Reconditioning

- **Rehabilitation** is the process to regain full function following **injury** and involves restoring strength, flexibility, endurance, and power. It is achieved through various exercises and drills.
- **Reconditioning** is a performance-based model for training and preparing athletes following injury. It recognizes that biological healing alone of the injured area does not determine whether the athlete is competition ready.



Current vs Proposed

- Current practice
 - Focus on the injury now, recondition later

- Proposed practice -
 - Address it all
 - Limit the amount of deconditioning
 - Requires great communication between PT, ATC, Strength Coach, Sport Coach on plan/approach

PARKVIFW

The Part vs. The Whole

- Where should the focus be?
- Why is it important?
- When to implement?

Early-stage

- Rehabilitation focus
 - Tissue healing
 - Inflammatory response mitigation
 - ROM restoration
 - Neuromuscular re-education
- Reconditioning focus
 - Core/Trunk Stability
 - Un-affected body part strength training
 - General conditioning
 - · Constant velocity/low intensity





- Rehabilitation focus
 - ROM Restoration
 - Functional patterns
 - Tissue loading
- Reconditioning focus
 - Introduction of whole body movements (multi-joint, multi-planar)
 - Introduction of athletic movements (run, jump, hop, skip, slide, bound, role, fall)
 - Introduction of whole body strength movements
 - Sport specialized conditioning (introduction)
 - Deliberate, specific, moderate intensity
 - Rehab session warm-up?



Late-stage

- Rehabilitation focus
 - Higher intensity exercises
 - Functional movements/exercises
 - Sport specific patterns
- Reconditioning
 - Advanced plyometrics
 - Advanced Strength Training program
 - Advanced sport specialized conditioning



Conditioning Options

- Low Intensity
 - Bike (Constant Velocity)
 - Treadmill Walk
 - Walk
 - Stairclimber/Stairs
 - Elliptical
- Moderate Intensity
 - Bike Intervals
 - Treadmill Walk Incline/Run
 - Jog/Run
 - Rower
 - Elliptical

- High Intensity
 - Bike Intervals
 - Treadmill Run/Intervals
 - Run
 - Sprint
 - Rower
 - "Circuit Training"

*<u>Consideration is work/rest</u> ratio

Bike Interval Examples

<u>Time</u>

:20 sec

:10 sec

:20 sec

:10 sec

:20 sec

:10 sec

:20 sec

5 min

60

≥110

60

≥110

60

≥110

60

60

Moderate

Moderate

Moderate

Moderate

Moderate

Moderate

Moderate

Low

<u>RPM</u>

Resistance

5 min	60	Low		There		Desistance	T		Desistence // such
:10 sec	≥110	Moderate		Time	<u>RPIVI</u>	Resistance	lime	<u>RPIV</u>	<u>Resistance/Level</u>
:20 sec	60	Moderate		5 min	60	Low	2	60	6
:10 sec	≥110	Moderate		10	>110	Madarata	4	100	7
:20 Sec	5110	Moderate	8 rounds		2110	woderate	1	100	/
:20 sec	≥110 60	Moderate		—:20 sec	60	Moderate	1	100	6
:10 sec	≥110	Moderate		2 min	60	Low	1	100	0
:20 sec	60	Moderate		2 11111	60	LOW	I	100	9
:10 sec	≥110	Moderate		:10 sec	≥110	Moderate	1	100	6
:20 sec	60	Moderate	8 rounds <	:20 000	60	Modorato	1	100	11
:10 sec	≥110	Moderate		20 Sec	00	Moderate	1	100	11
:20 sec	60	Moderate		5 min	60	Low	1	100	6
:10 sec	≥110	Moderate					1	100	13
:20 sec	60	Moderate		_				100	10
:10 sec	≥110	Moderate		lime	<u>RPM</u>	<u>Resistance</u>	2	60	6
:20 sec	60	Moderate		5 min	60	Low	1	100	8
:10 sec	≥110	Moderate		0 11111	00	LOW		100	0
.20 Sec 2 min	60	Low	1 rounds	-:30 sec	≥110	Moderate	1	100	6
:10 sec	≥110	Moderate	4 Tourius 🥿	—:30 sec	60	Moderate	1	100	10
:20 sec	60	Moderate		0	00			100	
:10 sec	≥110	Moderate		2 min	60	LOW	1	100	6
:20 sec	60	Moderate		-: 30 sec	≥110	Moderate	1	100	12
:10 sec	≥110	Moderate	4 rounds 🧹					100	12
:20 sec	60	Moderate		— :30 sec	60	Moderate	1	100	6
:10 sec	≥110	Moderate		5 min	60	Low	1	100	1/
:20 sec	60	Moderate		0 11111	00	LOW	1	100	14
:10 sec	≥110	Moderate					2	60	6
:20 SEC	50	Noderate							
.10 580	<11U	wouerate							

Treadmill Incline Example

Time	Speed	Incline/Grade
1	3.0 - 3.5	0
1	3.0 - 3.5	1
1	3.0 - 3.5	2
1	3.0 - 3.5	3
1	3.0 - 3.5	4
1	3.0 - 3.5	5
1	3.0 - 3.5	6
1	3.0 - 3.5	7
1	3.0 - 3.5	8
1	3.0 - 3.5	9
1	3.0 - 3.5	10
1	3.0 - 3.5	11
1	3.0 - 3.5	12
1	3.0 - 3.5	13
1	3.0 - 3.5	14
1	3.0 - 3.5	15
1	3.0 - 3.5	14
1	3.0 - 3.5	13
1	3.0 - 3.5	12
1	3.0 - 3.5	11
1	3.0 - 3.5	10
1	3.0 - 3.5	9
1	3.0 - 3.5	8
1	3.0 - 3.5	7
1	3.0 - 3.5	6
1	3.0 - 3.5	5
1	3.0 - 3.5	4
1	3.0 - 3.5	3
1	3.0 - 3.5	2
1	3.0 - 3.5	1
1	3.0 - 3.5	0



SPORTS MEDICINE

Running/Sprinting Examples

- 20's/40's/60's
 - Sprint/Walk
 - Sprint/Jog/Walk
 - Sprint/Walk/Jog
- Baseball Poles (≈200 yds)
 - <:35 sec sprint / 1 min rest
- 300 yd Shuttles (3 reps max)
 - <:70 sec / 2 min rest

Strength Examples

• Lower Body Circuits

<u>Exercise</u>	<u>Reps</u>
BW Squat	20
Forward Lunge	10 each
Step-up	10 each
Wall-Sit	1 min

Exercise	<u>Reps</u>
Single Leg Squat-to- bench	10 each
Lateral Lunge	10 each
Split Squat	10 each :20-40
Lunge Hold	sec

Upper Body Circuit

Exercise	<u>Reps</u>
Push-up	10
	10
Alternating V-up	each
Bird	10
dog/Quadruped	each
Inverted Rows	10

Be Prepared

- Don't wait to begin reconditioning
- Communicate with your staff
- Create a catalog of conditioning/strength
 protocols/programs
- Implement appropriate exercises for the phase
- Be creative



Questions?