

# Reflexive Performance Reset®



RPR is the only system in the world  
where athletes can do the interventions themselves.

# REFLEXIVE PERFORMANCE RESET<sup>®</sup> Story



If you take one thing out of today, understand that implementing RPR into your current program is simple and will have a massive impact on your athletes.

# Reflexive Performance Reset®

Personal Reasons for RPR

Rpr and compensation Patterns

Strength coaches Get Blamed

# Reflexive Performance Reset<sup>®</sup>

## RPR Wake up Video

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## Game Day Test

# Reflexive Performance Reset®

## RPR Questions

How long does it last?

How Often?



**OHIO MACHINE PERFORMANCE PREP (TEAM FLEX) - 7M**

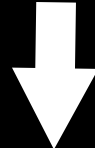
<b>Exercise</b>	<b>Time/Dist.</b>
5 Superman pose belly breaths	5
Leg cradle	10 yards
Hip Openers	10 yards
High knees	15 yards
Calf smash	15 yards
Diaphragm wake up	20s
Psoas wake up	10s
Ankle tap skips	10 yards
A-Skip	15 yards
Lateral lunge w/cross body reach	3ea way
Glute wake up	20s
Quad wake up	15s

**OHIO MACHINE PERFORMANCE PREP**

<b>Exercise</b>	<b>Time/Dist.</b>
Backpedal strides	15 yards x 2
Carioca w/ knee drive	15 yards x 2
Hamstring wake up	10s
Hip wake up	15s
75% sprint	20 yards
90% sprint	20 yards
Crossover run to sprint (5/5)	15 yards x 2
Shoulder wake up drill	15s ea side
Shoulder integrity (circle/saw/swim)	30s
rotational wake up	15s
3 Superman pose belly breaths	3
Hot feet hip swivel - sprint out	20 yards - 2x

The body has been explained and studied incompletely,  
RPR changes that.

**1. Nervous System –Foam Rolling for  
Nervous System**



**2. Connective Tissue/Fascia**

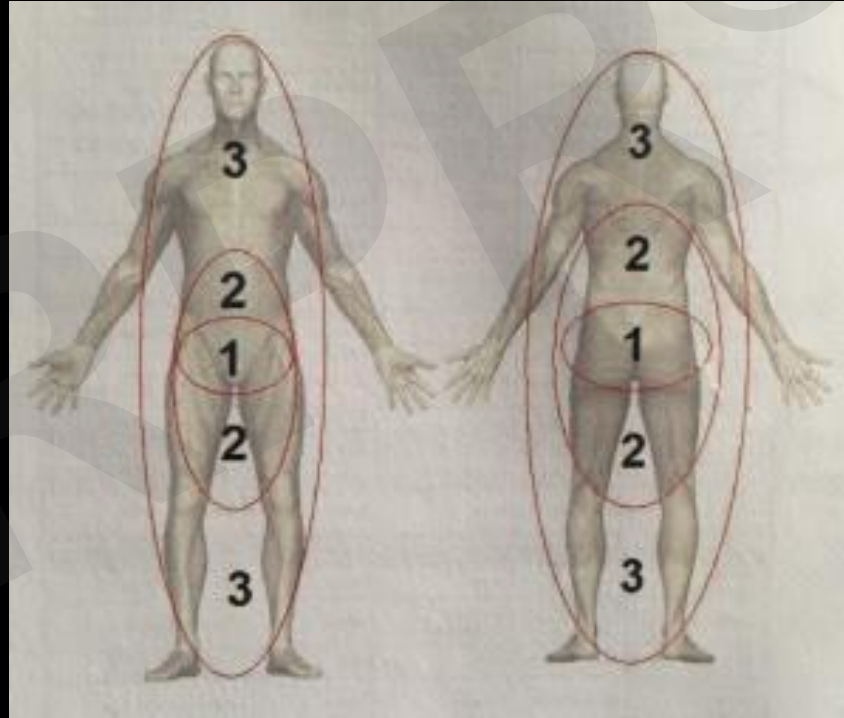


**3. Muscular System**

- Laptop analogy



# Explosion vs Implosion



# REFLEXIVE PERFORMANCE RESET®

## Basic RPR Breath Reset Effects

Breathing is the most essential thing you do in life, it's the base of RPR and you must constantly coach it for your athletes to excel.

# REFLEXIVE PERFORMANCE RESET<sup>®</sup>

We Address the Main Cause of the Breathing Issue

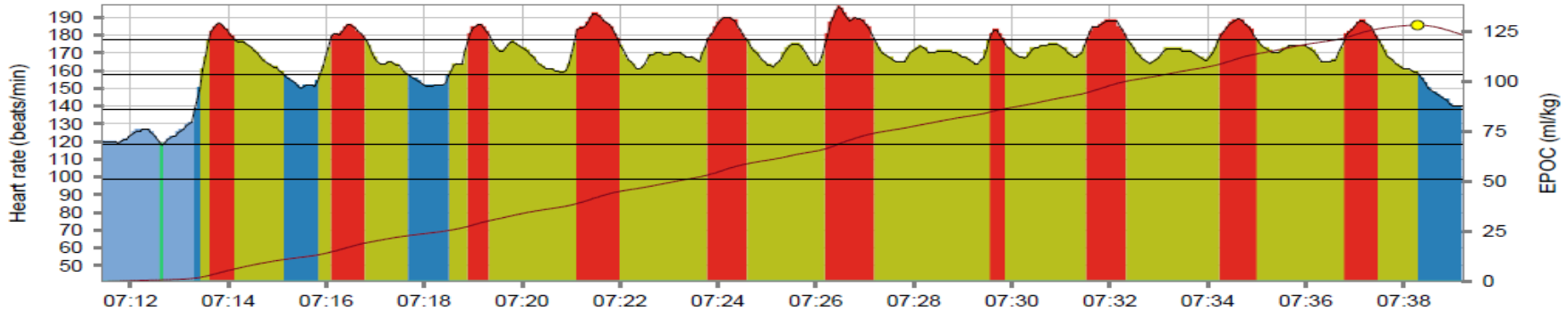
Breathing is the most essential thing you do in life, it's the base of RPR and you must constantly coach it for your athletes to excel.

# Direct Effects of RPR Breathing Reset

- Much quicker transition from sympathetic to parasympathetic
- Increases nose breathing capacity which improves nitric oxide, a powerful immune-boosting molecule that is produced in the sinuses during nose breathing (not mouth breathing)
- 3 Time olympian Bike Workout - HR 160 b.p.m. for three years
  - HR at 140 b.p.m. RPR Breathing Reset and same workout
- Army ranger had been sleeping in two hour intervals for years
  - Slept 13 hours in the first night after reset
- The training system can be more specific for alactic (short sprint system) and lactate system if breathing is optimal and you're only taxing the system you're wishing to train

# Athlete 1 – Pre-Test, 9/3/16

## TRAINING CHART

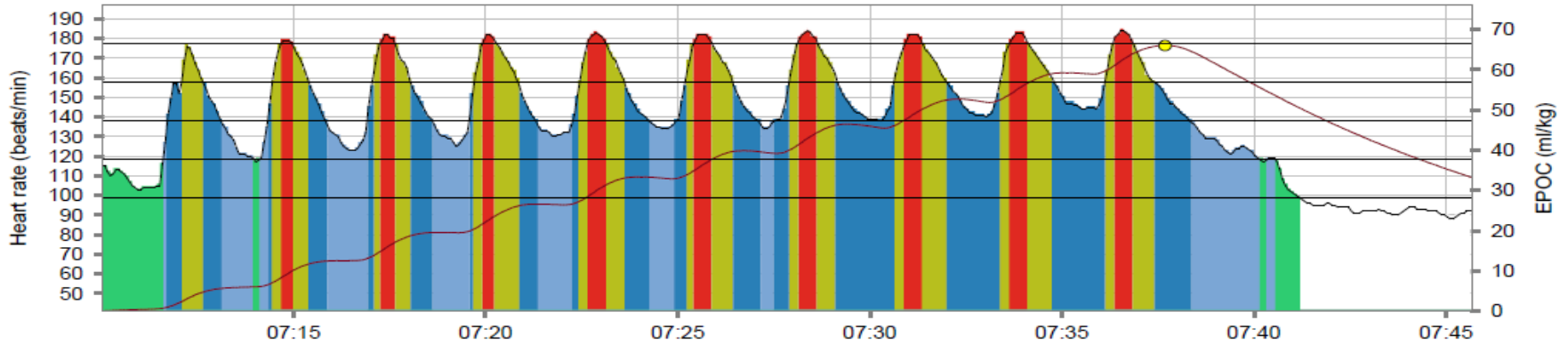


High intensity training	24%		00:06:38
Anaerobic threshold zone	59%		00:16:33
Aerobic zone 2	10%		00:02:44
Aerobic zone 1	7%		00:01:55
Recovery training	0%		00:00:02

— EPOC (ml/kg) ● Peak value

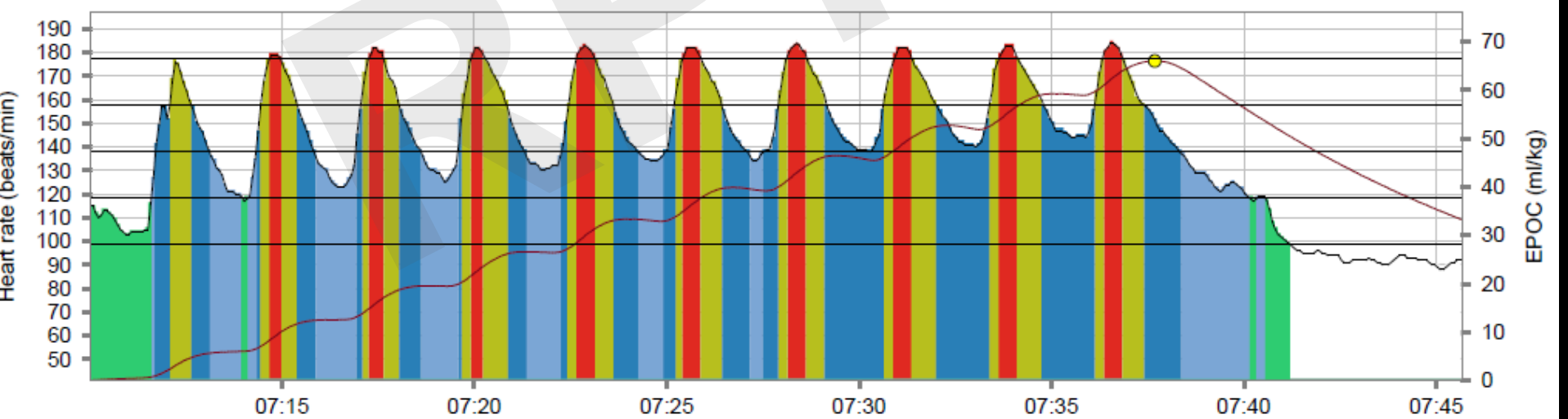
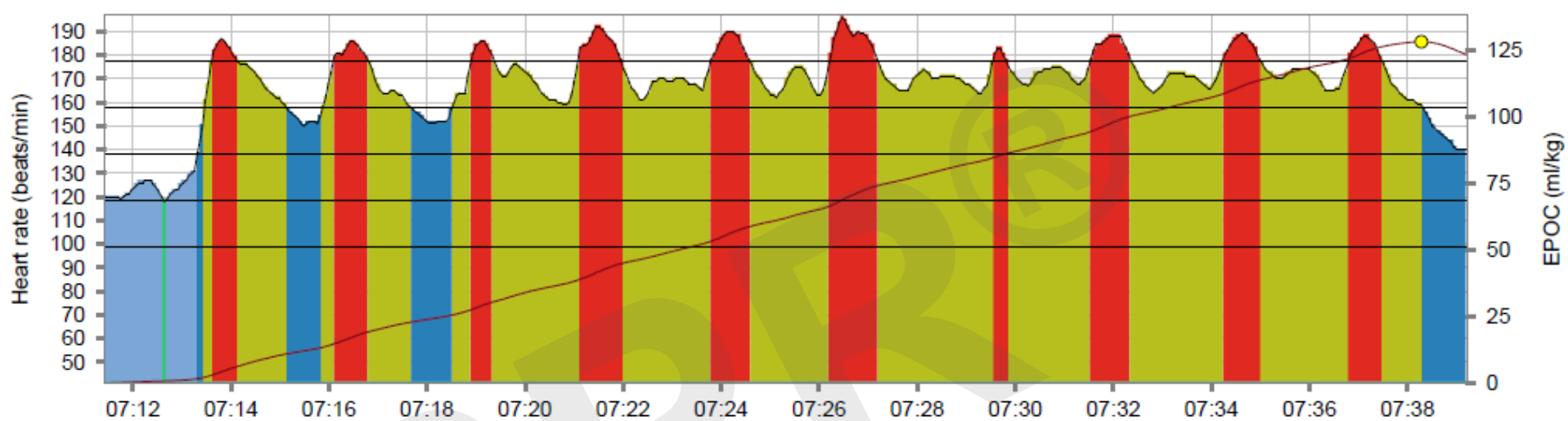
# Athlete 1 – Post-Test, 9/9/16 - 6 Days Later

## TRAINING CHART



High intensity training	10%	00:03:39
Anaerobic threshold zone	20%	00:07:16
Aerobic zone 2	28%	00:10:04
Aerobic zone 1	21%	00:07:38
Recovery training	8%	00:02:38

— EPOC (ml/kg) ● Peak value



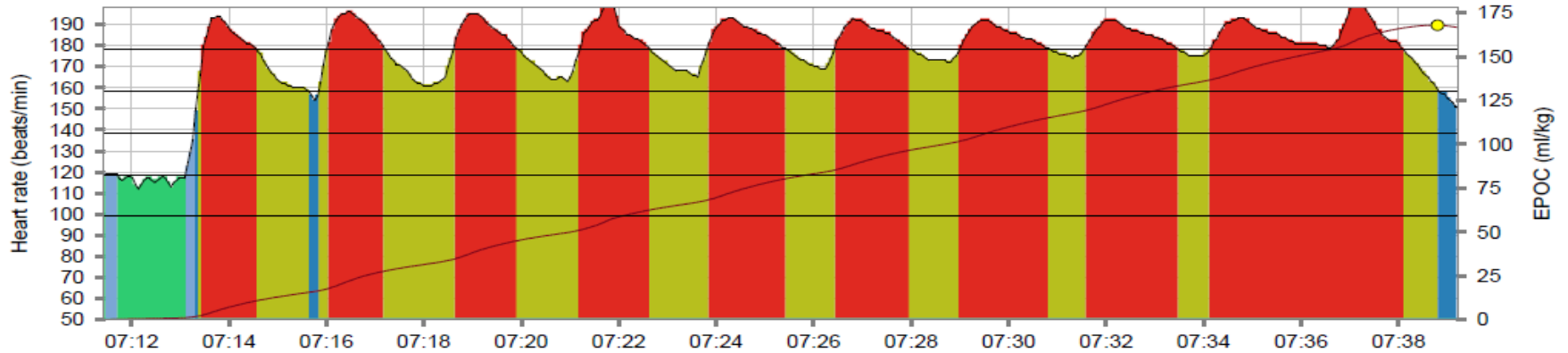
# Major Results with Athlete 1

- Change occurs in 6 days
  - First Test - 83% of the test was completed in the first two HR zones
  - 6 Days Later - 30% of the test was completed in the first two HR zones
- Increase in substrate dynamics
- More efficient breathing patterns
- Recovered faster between sets
- Same exercise was not as intense



# Athlete 2 – Pre-Test, 9/3/16

## TRAINING CHART

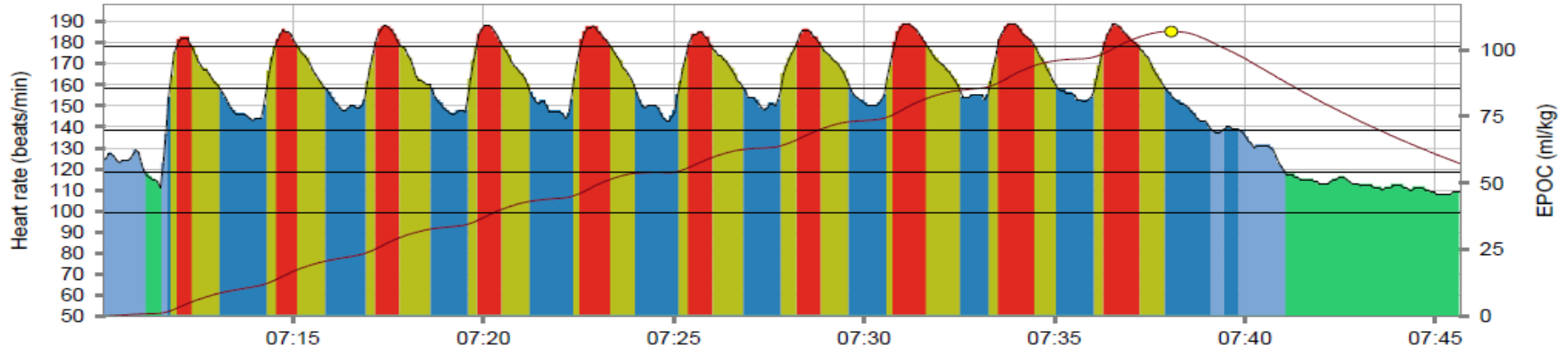






High intensity training	55%	<div style="width: 55%; height: 15px; background-color: red;"></div>	00:15:25
Anaerobic threshold zone	34%	<div style="width: 34%; height: 15px; background-color: olive;"></div>	00:09:23
Aerobic zone 2	3%	<div style="width: 3%; height: 15px; background-color: blue;"></div>	00:00:43
Aerobic zone 1	2%	<div style="width: 2%; height: 15px; background-color: blue;"></div>	00:00:27
Recovery training	5%	<div style="width: 5%; height: 15px; background-color: green;"></div>	00:01:28

— EPOC (ml/kg) ● Peak value

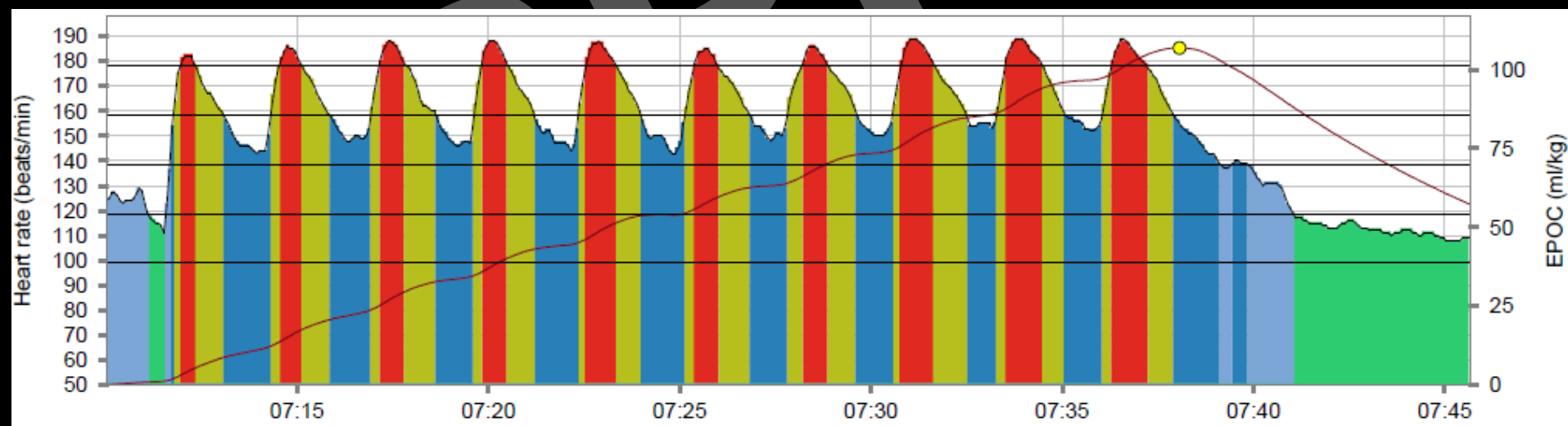
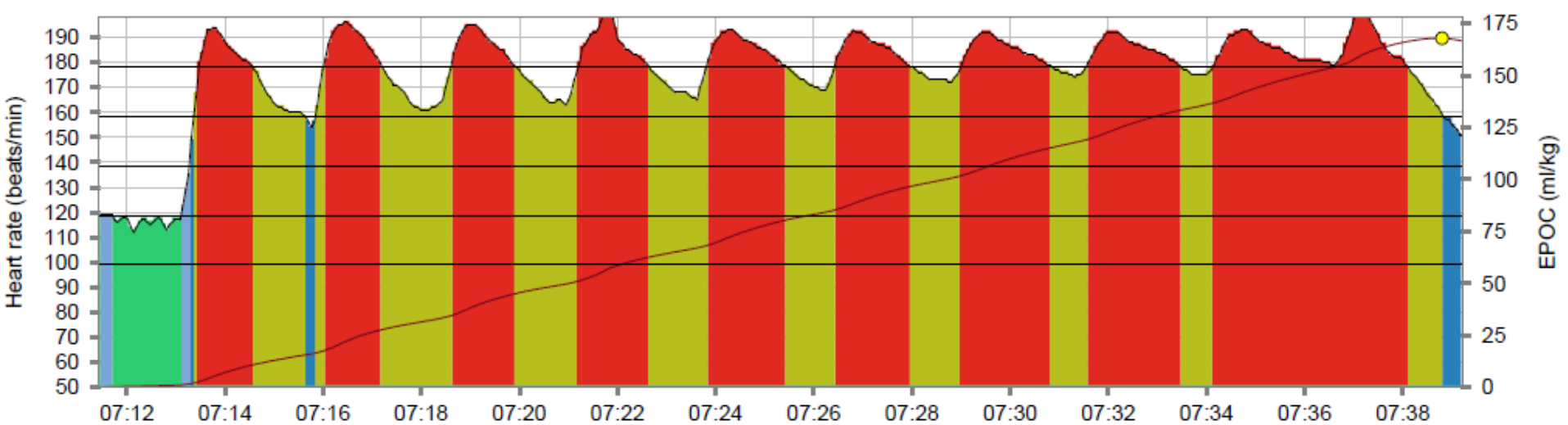
# Athlete 2 – Post-Test, 9/9/16

## TRAINING CHART



High intensity training	19%		00:06:52
Anaerobic threshold zone	27%		00:09:30
Aerobic zone 2	32%		00:11:30
Aerobic zone 1	7%		00:02:40
Recovery training	15%		00:05:12

— EPOC (ml/kg) ● Peak value



## Major Results with Athlete 2

- Change occurs in 6 days
  - First Test - 91% of the test was completed in the first two HR zones
  - 6 Days Later - 48% of the test was completed in the first two HR zones
- Increase in substrate dynamics
- Notice the time spent in the bottom three heart rate zones in the first test was 10%, and 54% in the second test

# Autonomic Nervous System

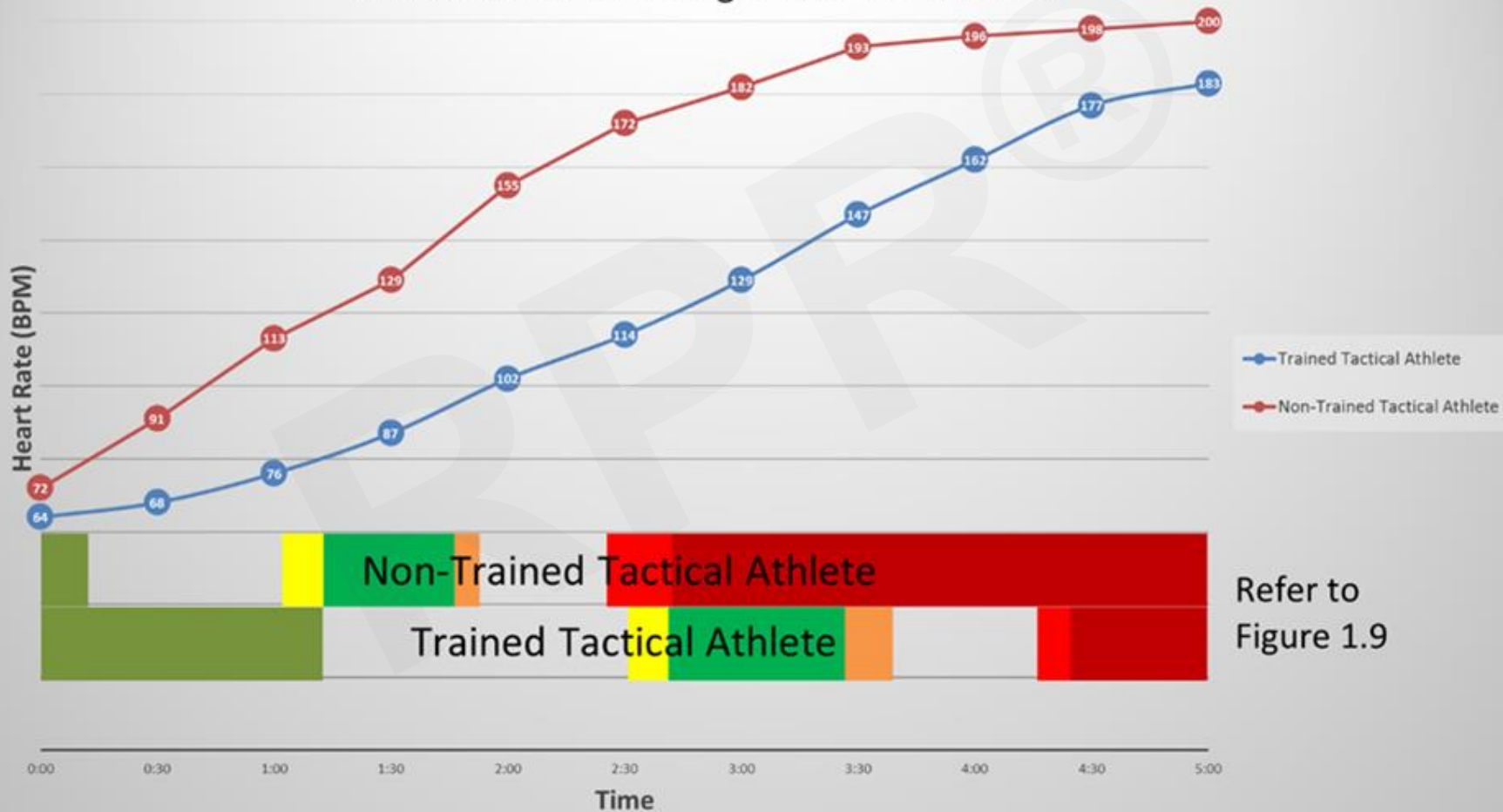
- Sympathetic vs. Parasympathetic
  - Sympathetic is highly active in stressful situations - increased heart rate
- Excessive leads to sub-optimal decisions/performance
- Vital in controlling responses and maintaining composure
- Can be controlled through proper training and other forms of stress inoculation

Heart Rate and Tactical Athlete Performance					
HR: 60-80	HR: 115-120	HR: 120-145	HR: 145-150	HR: 170-175	HR: 175-200
Normal Resting Heart Rate	Fine Motor Skill Deteriorates	Optimal Survival & Combat Performance for: Complex Motor Skills Visual Reaction Time Cognitive Reaction Time	Complex Motor Skills Deteriorate	Cognitive Processing Deteriorates Loss of Peripheral Vision (Tunnel Vision) Loss of Depth Perception Loss of Near Vision Auditory Exclusion (Tunnel Hearing)	Irrational Fighting or Fleeting Submissive Behavior Gross Motor Skills (Running, Charging) at Highest Performing Levels

# Heart Rate and Tactical Athlete Performance

HR: 60-80	HR: 115-120	HR: 120-145	HR: 145-150	HR: 170-175	HR: 175-200
Normal Resting Heart Rate	Fine Motor Skill Deteriorates	Optimal Survival & Combat Performance for: Complex Motor Skills Visual Reaction Time Cognitive Reaction Time	Complex Motor Skills Deteriorate	Cognitive Processing Deteriorates Loss of Peripheral Vision (Tunnel Vision) Loss of Depth Perception Loss of Near Vision Auditory Exclusion (Tunnel Hearing)	Irrational Fighting or Fleeting Submissive Behavior Gross Motor Skills (Running, Charging) at Highest Performing Levels

# Heart Rate Comparison of a Weekly Sequencing Trained and Non-Trained Tactical Athlete Enduring an Identical Stressor



# RPR Wake Up Drills

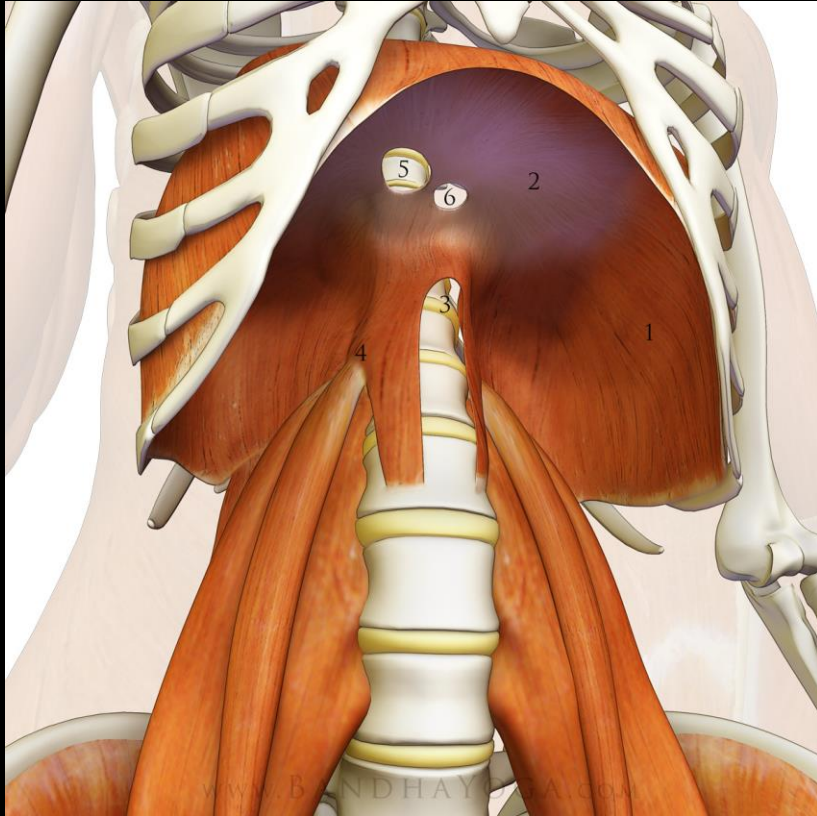
It all starts with the breathing

30,000 breaths per day,  
Are yours good or bad?

Stress everyone out & breathe poorly



# Diaphragm Ties To Psoas



- Belly breathing alone has increased psoas function
- Breathing is foundation of all biological function
  - Hold breath 5 Min
- Breathing correctly holds resets for extended period of time
- If psoas is dysfunctional, quads must do extra work (juicy quads video)

# The Breathing Psoas Glute Combination

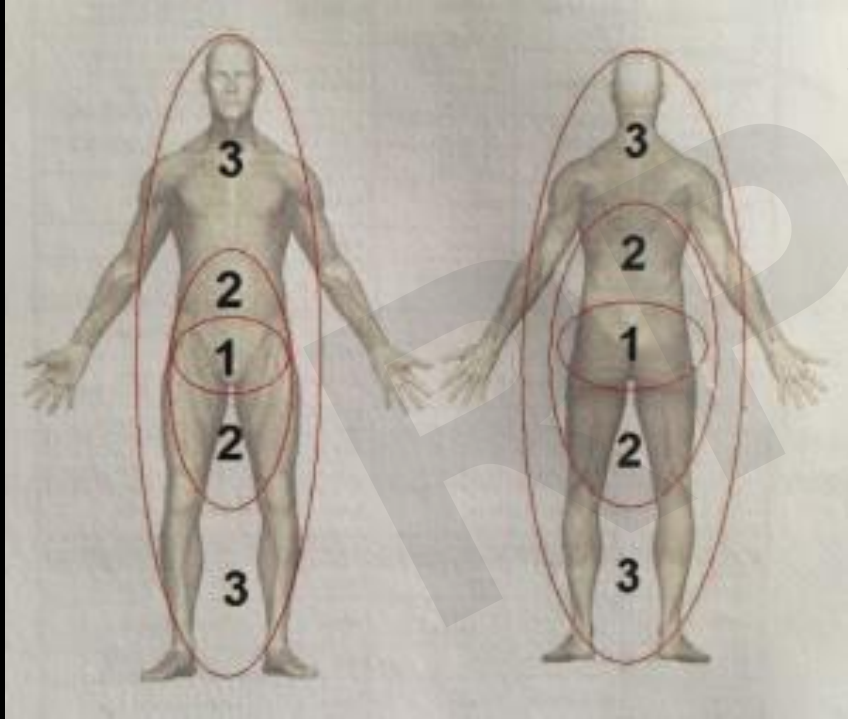
The Sequencing of this and Various Dysfunctions

The RPR Effect of these and What Happens – Shorten or  
Lengthened

The Diaphragm is tied to Psoas

Psoas is tied to The Glute

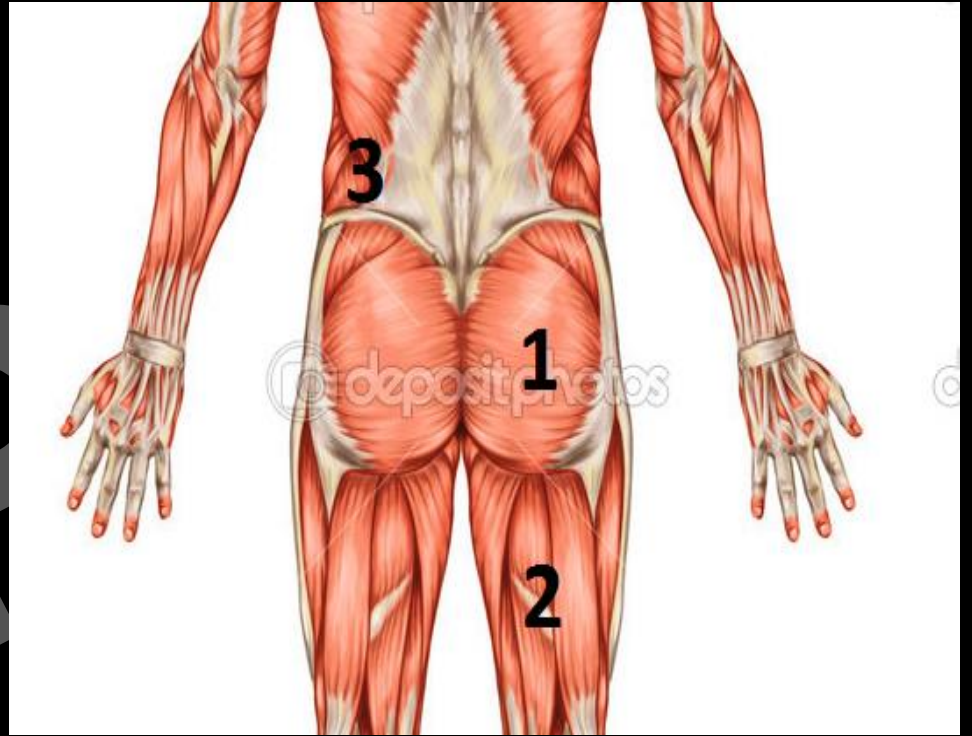
# Hip Flexion



- Can't function without it
- Can't hunt for food - can't play sports
- If hip flexion isn't working optimally then body recruits from other areas
- RPR<sup>®</sup> gives you insight into compensation patterns and injuries that you will connect with the past and future

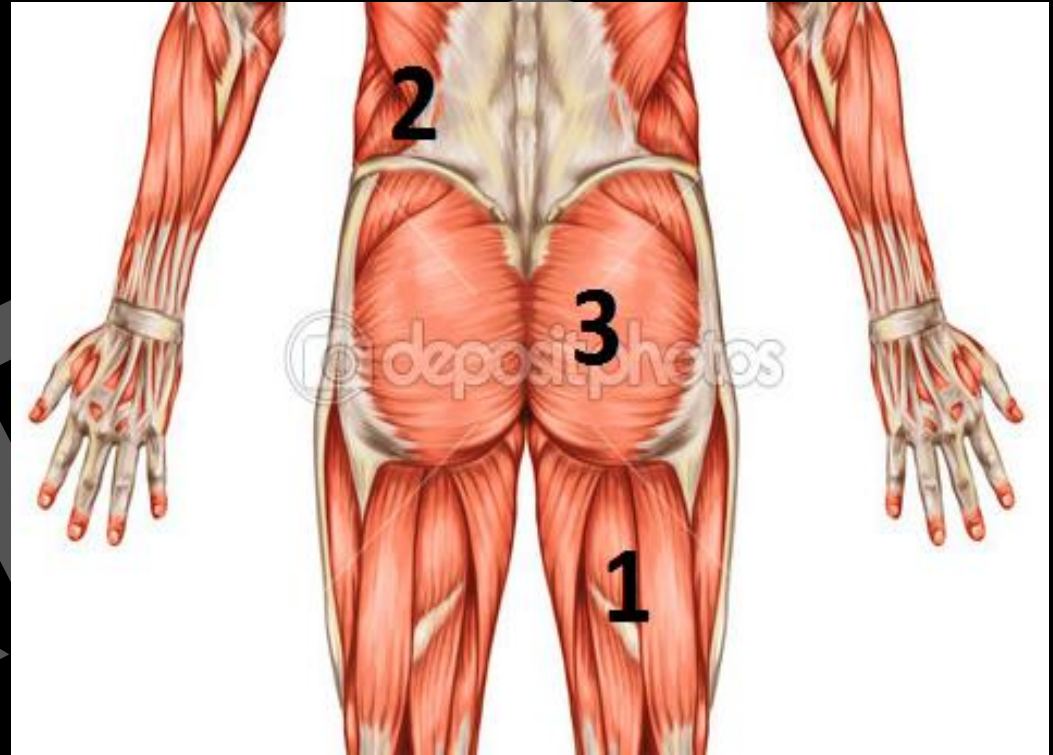
1. Glutes
2. Hamstrings
3. Contralateral QL

Most functional high performance



1. Hamstring
2. Contralateral QL
3. Glute

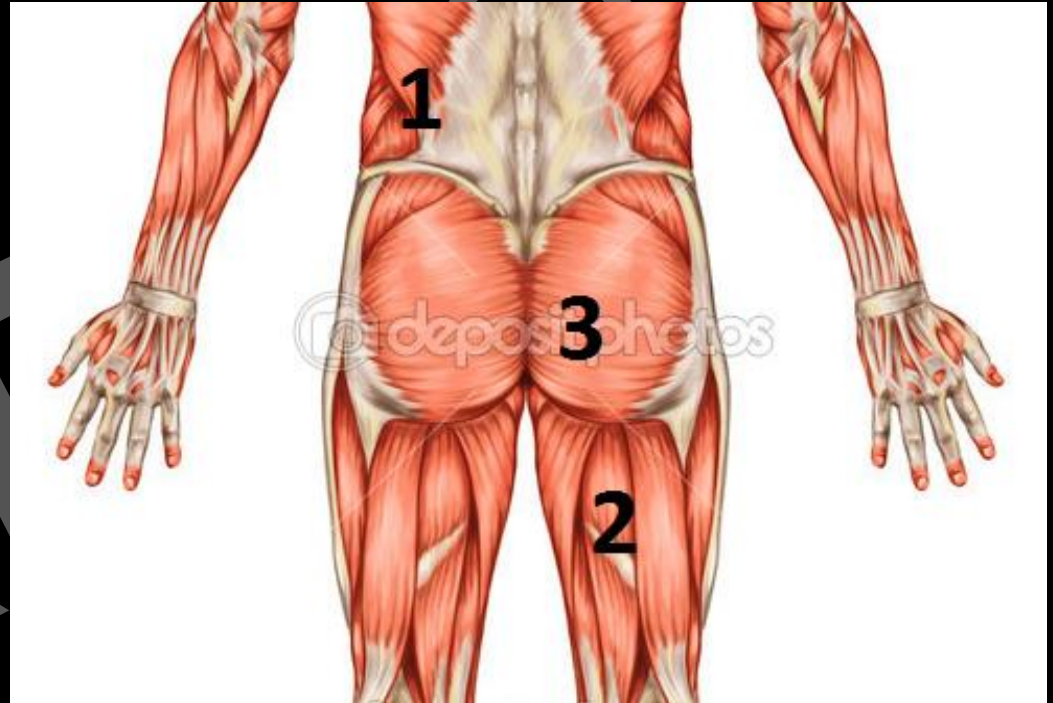
Pulled hamstring,  
hamstring issues,  
wide powerlifting  
stretching?



1. Contralateral QL
2. Hamstring
3. Glute

Low back tight, tight back performance, future disc issues, too much core bracing (yoga/pilates)  
**Plank the right way!**

4. Fingers





# Large Juicy Quads



- Why are quads so big?
  - Quads are doing too much?
    - Psoas
  - What happens to speed?
- Results
  - Fatigued quads because of the work
  - Abs and quads compensate for hip flexor, abs then become stabilizer of hips and rotation will be limited
    - This is not always a thoracic issues
  - Ribs tucked, shoulders forward
    - Low back pain?
    - Lower back locked, firing pattern wrong

# Quad Dominance Effects - Direct and Indirect

- Direct

  - Tendinitis of the knee

  - Fatiguing of the quad faster because of the tight tissue and possible ACL problems

- Indirect

  - Locks up lumbar with mobility and tightness

  - Shoulder posture forward

  - Pulls ribs down which causes incorrect glute firing pattern

  - Cause lateral sling imbalances - instability in running



# Lateral Sling

Glute Med - Abductor – Abductor - Quadratus Lumborum – Lat

# **ATHLETE POST ACL TEAR**

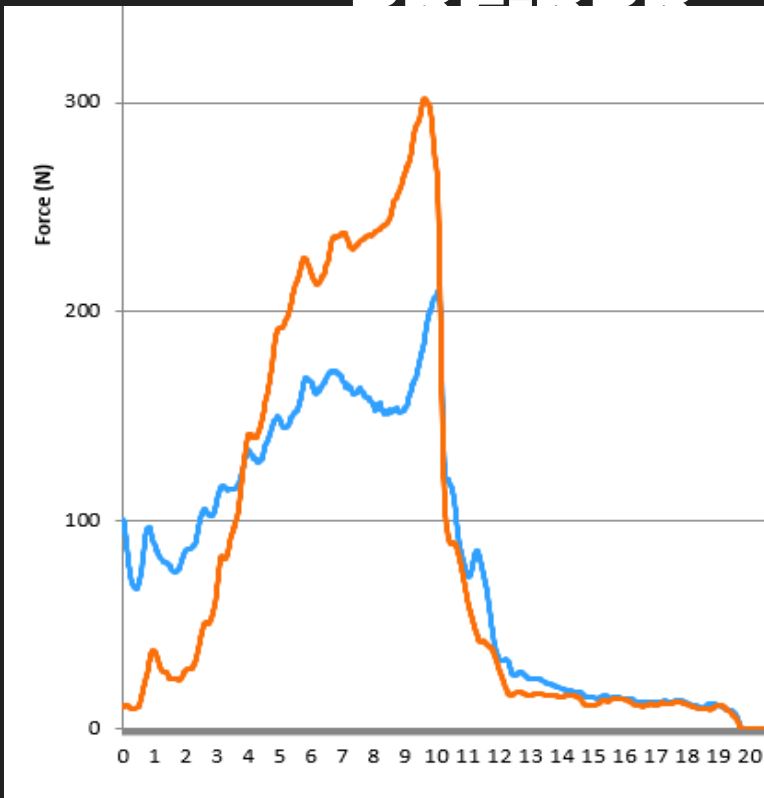


- **Athlete tore Left ACL in June of 2014**
- **Had surgery in December of 2015 (Year and a Half after Injury)**
- **Performed inconsistent rehab for 3 months before completely stopping**

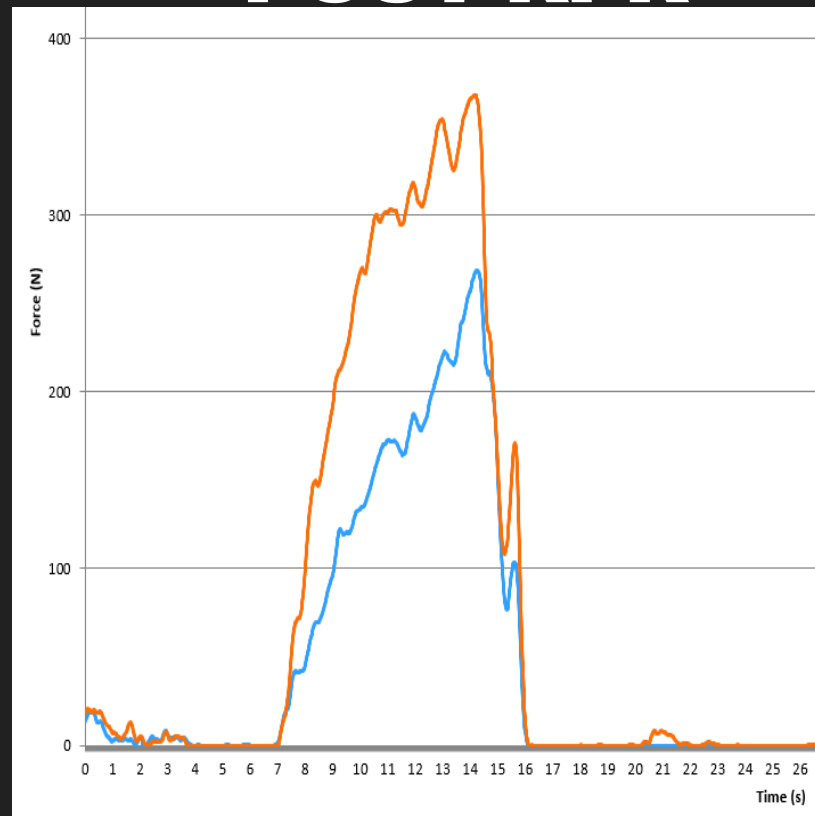
## **Order of Events:**

- 1) Athlete Performed the Hamstring Strength Test**
- 2) RPR – Reset -**
- 3) Athlete Performed the Hamstring Strength Test**
- 4) Athlete Performed the Hamstring Strength Test 2 DAYS LATER**

# PRE-RPR



# POST-RPR



**ORANGE = RIGHT LEG**    **BLUE = LEFT LEG (ACL)**

# RESULTS

- **+65.7 N**
- **+23.9 TORQUE**

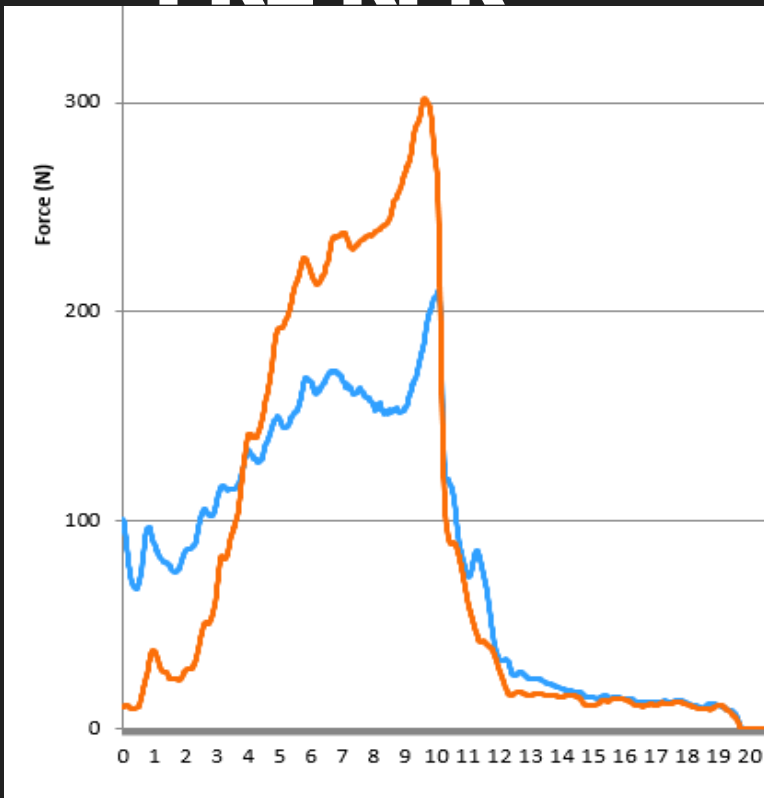
## LEFT LEG:

- **+58.8 N**
- **+21.4 TORQUE**

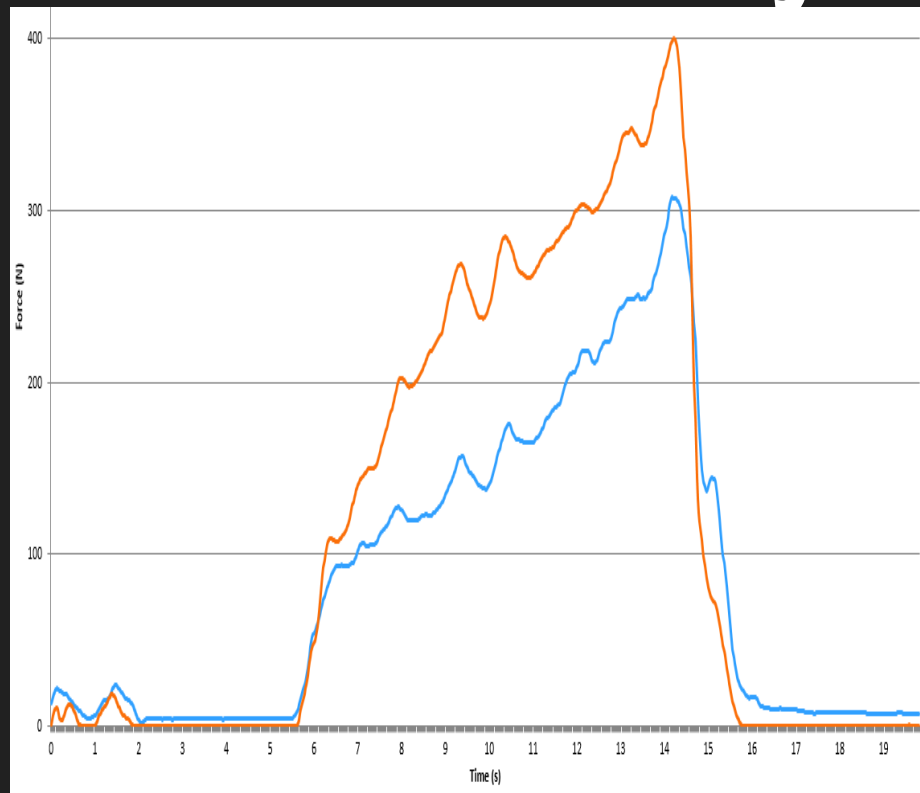
## IMBALANCE:

- **-3.55%**

# PRE-RPR

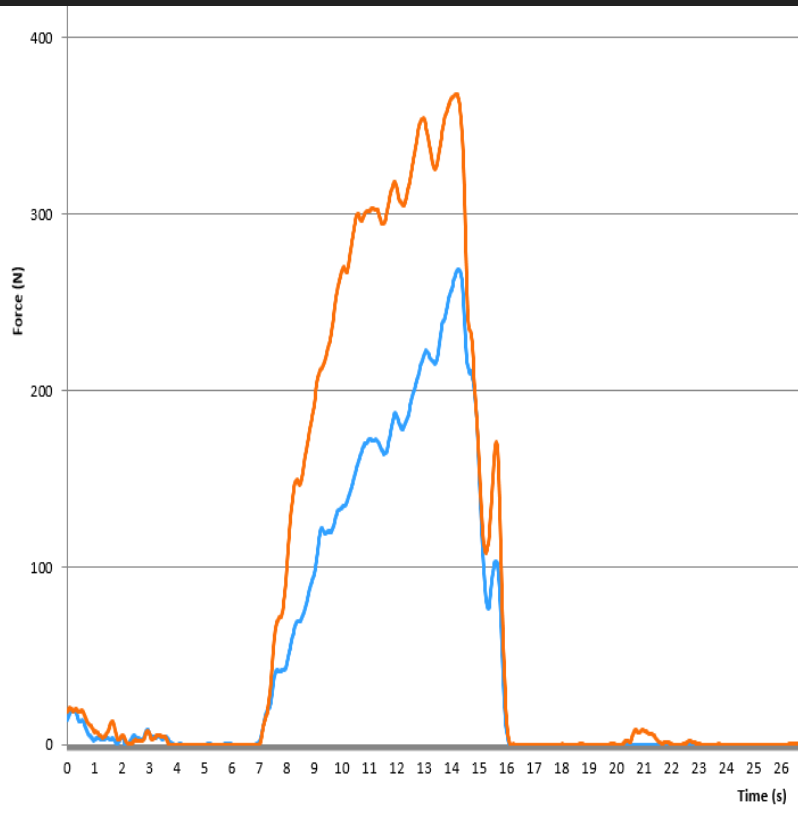


# POST-RPR 2 days

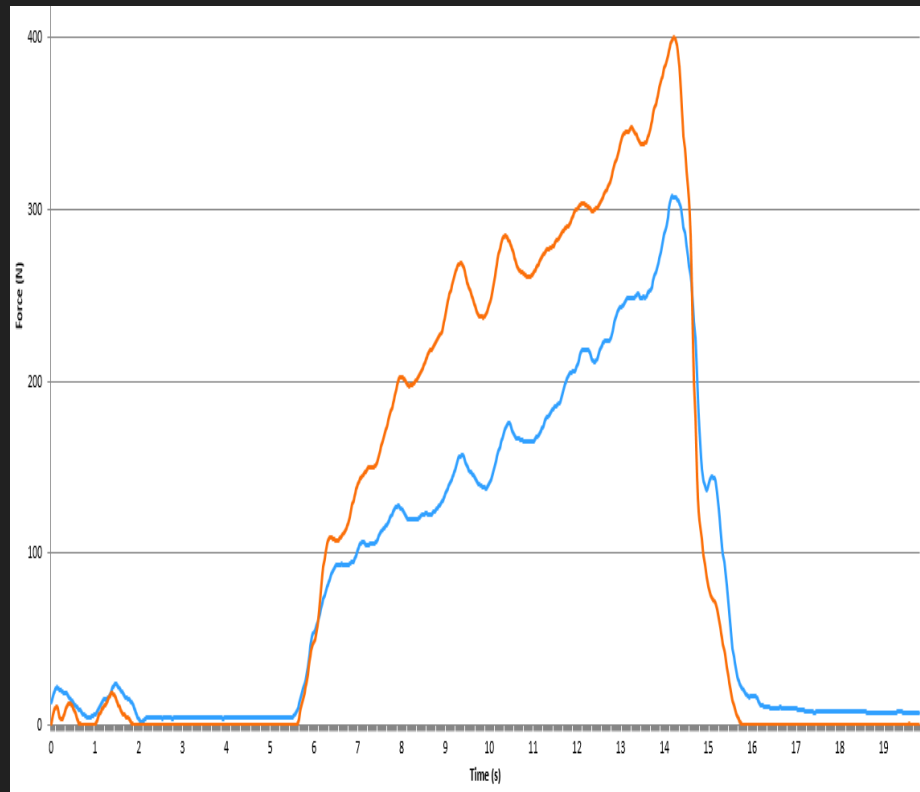


**ORANGE = RIGHT LEG**    **BLUE = LEFT LEG (ACL)**

# POST-RPR



# 2 DAYS LATER



**ORANGE = RIGHT LEG**    **BLUE = LEFT LEG (ACL)**

# RESULT - Post 2 days RPR Strength Still going up

## 2 DAYS AFTER RPR VS. POST-RPR

- **+39.2 N**
- **+14.3 TORQUE**

### LEFT LEG:

- **+32 N**
- **+11.7 TORQUE**

### IMBALANCE:

- **-3.97%**

## 2 DAYS AFTER RPR VS. PRE-RPR

- **+97.7 N**
- **+35.6 TORQUE**

### LEFT LEG:

- **+98 N**
- **+35.7 TORQUE**

### IMBALANCE:

- **-7.52%**

# Neural Drive Patterns - Concepts

- **Quad**
  - Have tendinitis in knee
    - Potential ACL issues due to fatigue
- **Arm**
  - Tendinitis in elbow
    - Wear out gloves on the cheat side faster
- **Tibialis**
  - Ankle Sprains, shin splints
    - Wear out shoe faster than other side
    - Knee pain on this side because shock absorber is tight
- **Jaw**
  - Increase in concussion
  - Chew mouth guards



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