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

Rpr and compensation Patterns

Strength coaches Get Blamed
Reflexive Performance Reset

RPR Wake up Video
Reflexive Performance Reset®

Game Day Test
Reflexive Performance Reset®

RPR Questions

How long does it last?

How Often?
### Ohio Machine Performance Prep (Team Flex) - 7m

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

### Ohio Machine Performance Prep

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Time/Dist.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backpedal strides</td>
<td>15 yards x 2</td>
</tr>
<tr>
<td>Carica w/ knee drive</td>
<td>15 yards x 2</td>
</tr>
<tr>
<td>Hamstring wake up</td>
<td>10s</td>
</tr>
<tr>
<td>Hip wake up</td>
<td>15s</td>
</tr>
<tr>
<td>75% sprint</td>
<td>20 yards</td>
</tr>
<tr>
<td>90% sprint</td>
<td>20 yards</td>
</tr>
<tr>
<td>Crossover run to sprint (5/5)</td>
<td>15 yards x 2</td>
</tr>
<tr>
<td>Shoulder wake up drill</td>
<td>15s ea side</td>
</tr>
<tr>
<td>Shoulder integrity (circle/saw/swim)</td>
<td>30s</td>
</tr>
<tr>
<td>Rotational wake up</td>
<td>15s</td>
</tr>
<tr>
<td>3 Superman pose belly breaths</td>
<td>3</td>
</tr>
<tr>
<td>Hot feet hip swivel - sprint out</td>
<td>20 yards - 2x</td>
</tr>
</tbody>
</table>
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
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.
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% for 00:06:38
- Anaerobic threshold zone: 59% for 00:16:33
- Aerobic zone 2: 10% for 00:02:44
- Aerobic zone 1: 7% for 00:01:55
- Recovery training: 0% for 00:00:02

EPOC (ml/kg) and Peak value markers are also shown.
ATHLETE 1 – POST-TEST, 9/9/16 - 6 DAYS LATER

TRAINING CHART

- Heart rate (beats/min)
- EPOC (ml/kg)
- Peak value

- 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)
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

Heart rate (beats/min)

50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

EPOC (ml/kg)

High intensity training 55% 00:15:25
Anaerobic threshold zone 34% 00:09:23
Aerobic zone 2 3% 00:00:43
Aerobic zone 1 2% 00:00:27
Recovery training 5% 00:01:28

EPOC (ml/kg) Peak value
Athlete 2 – Post-Test, 9/9/16

TRAINING CHART

Heart rate (beats/min)

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)
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

<table>
<thead>
<tr>
<th>Heart Rate and Tactical Athlete Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>HR: 60-80</td>
</tr>
<tr>
<td>Heart Rate (HR)</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>60-80</td>
</tr>
<tr>
<td>115-120</td>
</tr>
<tr>
<td>120-145</td>
</tr>
<tr>
<td>145-150</td>
</tr>
<tr>
<td>175-200</td>
</tr>
</tbody>
</table>
Heart Rate Comparison of a Weekly Sequencing Trained and Non-Trained Tactical Athlete Enduring an Identical Stressor

- Trained Tactical Athlete
- Non-Trained Tactical Athlete

Refer to Figure 1.9
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 Main
- 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® 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
**ORANGE = RIGHT LEG   BLUE = LEFT LEG (ACL)**
RESULTS

RIGHT LEG:
• +65.7 N
• +23.9 TORQUE

LEFT LEG:
• +58.8 N
• +21.4 TORQUE

IMBALANCE:
• -3.55%
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

RIGHT LEG:
• +39.2 N
• +14.3 TORQUE

LEFT LEG:
• +32 N
• +11.7 TORQUE

IMBALANCE:
• -3.97%

2 DAYS AFTER RPR VS. PRE-RPR

RIGHT LEG:
• +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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